

THE **NO-GIMMICKS, NO-HYPE** HEALTH AND FITNESS MAGAZINE

EXPERIENCE LIFE

Being Healthy Is a Revolutionary Act

December 2015 / \$5.95

3 Miracle Cures (That Aren't, Really)

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Awestruck

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Prehab Your Body

Stop Injuries
Before They Start

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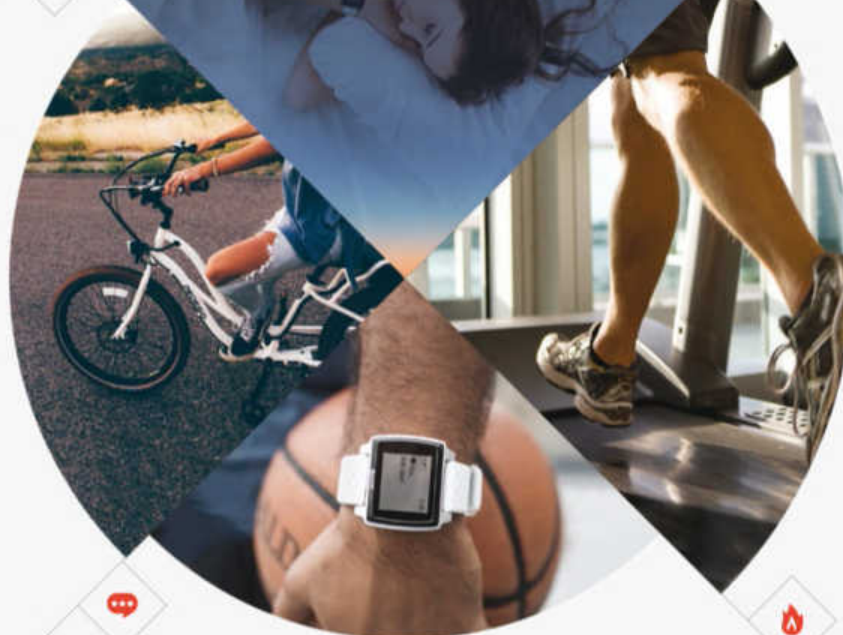
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EXPERIENCE LIFE

DECEMBER 2015 Volume 17, Issue 10 BE EXTRAORDINARY

FEATURES



54 3 MIRACLE CURES (THAT AREN'T, REALLY)

Many chronic ailments have no known cause or cure — at least as far as conventional medicine is concerned. Yet they are often treated successfully by progressive doctors who get “miraculous” results simply by delving into the underlying problems, and by enrolling their patients in the process.

By Anjula Razdan



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By Experience Life Staff



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EXPERIENCE LIFE

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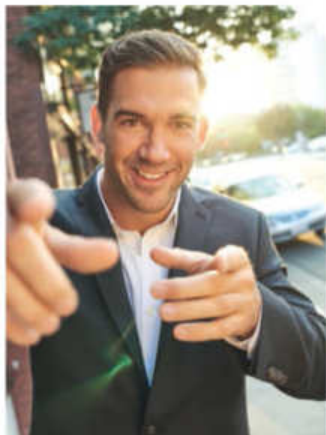
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GIVE

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Give the endurance to go one more mile.



Be more human.

EXPERIENCE LIFE

Our Mission: Empowering people to become their best, healthiest selves, and supporting their enjoyment of a balanced, sustainable, deeply satisfying way of life.

Our Mantra: Being Healthy Is a Revolutionary Act.

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The Growing Edge

AS 2015 DRAWS to a close, I'm reflecting on the fact that I've been working on *Experience Life* for nearly 15 years now. Amazing.

Equally amazing is that I still love what I do, and I still learn something new with every issue. Somehow, it's always a fresh experience for me. And with every issue, we get letters from readers who let me know it's still a fresh experience for them, too.

One of the questions I get most often from people when they learn about my long history with the magazine is "How do you keep coming up with ideas for all those articles?" The truth is, that's the easy part.

Because our mission is helping our readers lead healthier, happier, more authentic lives, and because we live in a culture that throws up endless obstacles to that goal, we rarely run short of potential topics.

As a creative team, we only have to look around at our own challenges (and at those of our families and friends) and consider what's giving us the most trouble (or what's working best for us), and we've got an endless supply of material.

The only thing I find somewhat difficult about working on the magazine — particularly after all these years — is allowing it to grow beyond me, and allowing myself to grow beyond it.

I have always wanted *Experience Life* to have a life of its own, to see it evolve in ways that reflect our diverse, ever-expanding audience of health-motivated individuals. And of course, it must also reflect the shifting challenges they face.

At the same time, I am committed to seeing the magazine stay true

to its original vision, to preserving its central "no gimmicks, no hype" promise, and to maintaining its whole-person, whole-life purview.

On a personal level, too, I'm a big believer in the idea that it's important to keep growing, stretching, trying new things. So, for the past few years, I've been exploring ways I can recast my role as founding editor to include less time in the editing chair and more time as ambassador, guide, navigator, and collaborator.

I'm a big believer in the idea that it's important to keep growing, stretching, trying new things.

With this in mind, we've been expanding and reorganizing our team over the past year or so, and giving our staffers more room to try out new roles, hone new skills, and test out new territories.

It's been a fun process, one that has breathed new energy into our pages and our digital endeavors, including our award-winning enhanced digital edition and social-media streams. It has also allowed some long-standing team members to grow in exciting new directions.

One person who has quite literally grown up on our team, and who continues to enthusiastically embrace new challenges, is Jamie Martin. After joining us as an intern, fresh out of college, more than a decade ago, Jamie quickly rose through the editorial ranks. For the past several years,

she has led our digital initiatives, and recently she stepped into a new leadership role as executive editor.

Jamie and I have been working together for such a long time, I feel a profound sense of confidence in her instincts and skills. And in the coming year, as I peel off some of my day-to-day editorial tasks to focus more on the big picture (and my in-progress book), I am excited to see more of Jamie's mark on the magazine and its various digital offshoots.

I'll still be here at the helm, helping shape each issue, and keeping my finger on the pulse of whatever's coming next. And I'm hoping you'll actually get to hear a bit more from me as I make more time to speak, to write, to create new media streams, and to collaborate with like-minded partners.

Meanwhile, in honor of this successful year's end, and the new year coming into view, we've dedicated the current issue to all things fresh, untried, unexpected. Here's to the happy surprises, the unforeseen adventures, the doors unlocked and flung wide open just as you approach.

Take a deep breath, friends. Let us pause to release with appreciation the cycle we've just completed, and embrace with hope and optimism the new cycle that's about to be revealed.

Pilar Gerasimo is *Experience Life's* founding editor.

  @pgerasimo  @PilarGerasimo



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TALK TO US

Readers share their feedback.



Game-Changer

I am thrilled beyond words to see my mentor, Patricia Moreno, on the cover of *Experience Life*'s September 2015 issue. While intenSati has transformed the way I live my life, it is this woman who's the real game-changer and light-bringer.

@watchherwords

Congrats to @patriciamoreno33, who has impacted my life on so many levels, for being on the cover of #experiencelifemag and sharing her passion with the world!

@nywellnesswarrior

Love @patriciamoreno33 — great interview.

@alwaysrunning

Fantastic interview!

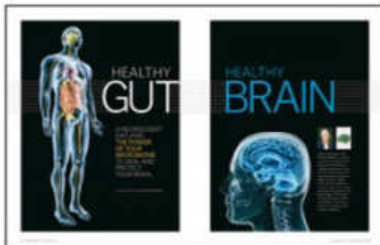
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Nurturing Connections

I wholeheartedly agree with Pilar Gerasimo's perspective in her September "Thoughts From the Editor" — "Where We Start and Stop." A positive attitude and spending time with positive people make all the difference, emotionally and physically. Thank you for your wonderful insights. You might want to reprint excerpts from Brené Brown's TED talks on this topic — they're profound!

Joy S.

Your suggestion to reprint Brené Brown's work was right on target. We're big fans, too, and we're excited to feature our top takeaways from her best-selling books in this issue's "The Unexpected Gifts of Imperfection" on page 66. We hope you enjoy it.



The Gut-Brain Connection On "Healthy Gut, Healthy Brain" (September 2015)

Just wanted to say that I loved this article. I wish this information was taught in all conventional medical schools as a required course. Thanks!

Lori

This is great information — thank you for the review on this topic. It is easy to forget to look at the gut first with so many physical and mood disorders.

Anna R.

I've been reading and listening to Dr. Perlmutter's work for several years. I am so inspired that the light is on and more and more people are taking note of his work.

G.D.

A Powerful Combination

For some people, fitness is their faith ("On Faith and Fitness," September 2015). Instead of one becoming the other, how about combining them to do the greatest good?

Aspire 2 Be Well

Cheers and Jeers

As an integrative health coach, (trained at Duke Integrative Medicine), I want to say how important your magazine is in my practice and in my personal life. I have a notebook full of your articles to share with clients. I categorize them for easy access and allow my clients to take them home to read. So much of what you publish blends well with the Duke Integrative Medicine Wheel of Health.

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TALK TO US

Thanks for all your hard work in researching and publishing such a solid and honest magazine.

Nancy H.

My 21-year-old son is a personal trainer (and an MMA fighter, to my chagrin), who also has a membership to Life Time. Your magazine arrived one day and I was flipping through it one morning on the way to work. I was amazed at what a great magazine this is! It's not just a bunch of advertising hype, but genuine, meaningful, and informative articles on how to be fit both physically and mentally! Great job!

Barb A.

✉ Please reconsider the prominent coverage you have been giving to leaky gut syndrome. I suffer from Crohn's disease myself, and this premise initially appealed to me. But after some reflection, it just seemed to have that "too good to be true" feel to it. Further research revealed to me that this premise is not science-based.

The leaky gut syndrome is a fledgling theory at best. I believe you are doing your readers a disservice by giving this theory such prominent coverage. And you are damaging your own credibility by lending credence to it.

Mark H.

Social Raves

📷 So excited to dig into [the October] issue! You guys rock!!!

@tarajm8

“
Such an incredible, life-informing, and life-changing magazine. I've been subscribing for years.”

🐦 Despite editorial in Oct issue about “ideal” body images you represent in the mag, I applaud the healthy people you picture!

@KarenTerhark

🐦 Such an incredible, life-informing, and life-changing magazine. I've been subscribing for years.

@MarkDoczy

📘 I love this magazine. Thank you for all the effort and good advice you all put into it.

Kelly H.



🐦 Enjoying reading @ExperienceLife magazine and found some friendly love. Hello @TheDailyLove.

#divineconnections

@TheDailyOWN

Get Out There

On “Walking in Nature Can Change Your Brain” (online only)

Thanks, Craig [Cox] and the Experience Life crew, for bringing in this affirmation from research of what should make sense to us naturally. More cities are experiencing growth of “greenways” and “green spaces” within their landscapes, making the point that aesthetics of walking in nature can be good for the populace. Now, we see a little on the brain physiology side.

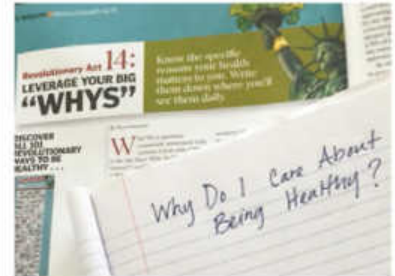
Rolland F.

CORRECTION: In the “Pair Up for Power” partner workout featured in our September issue, the Supine Pull-Up was incorrectly labeled. We regret the error.

Your Revolutionary Acts!

We're crowdsourcing your healthy-living ideas as part of our #MyRevAct campaign across social media.

Here were some of your responses to this post from founding editor Pilar Gerasimo (follow her on Instagram at @pgerasimo):



📷 Because as I get older, I want to spend my time with adventures, not with hospitals and doctors.

@kerstinauerlife

📷 Because I love life and want as many years as possible to live it.

@lavieboheme girl

📷 Because in good health, I can do anything.

@emilynminer

📘 I care about being healthy so I can enjoy my life fully — regardless of my age!

The Path of an Anti-Aging Warrior

Experience Life welcomes your comments and suggestions. Please email experiencelife@experiencelife.com, or send to:

Letters to the Editor
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MINDFUL MOMENT



In partnership with our friends at **Mindful** (the folks behind *Mindful* magazine, Mindful.org, and more), we're happy to bring you this series of bite-sized inspirations for body, mind, and spirit. Mindful is an initiative that celebrates being more conscious in all aspects of daily living — which we see as a key to living a healthier, happier life. Check out Mindful.org, where you can get connected with their magazine, social streams, multimedia offerings, free e-newsletter, and other good stuff.

In Pain?

Unexamined pain often feels like it's unchanging or always present. Prove that wrong by paying attention. Try this one-minute mindfulness practice.



Putting kindness—
toward self and others—
into the mix



Allowing experience
to be there, just as it is



Inquiring with interest
into physical sensations,
emotions, or thoughts



Not Identifying with the pain.
Stop asking, “*Why is this happening to me?*” Instead, remember it's a natural process

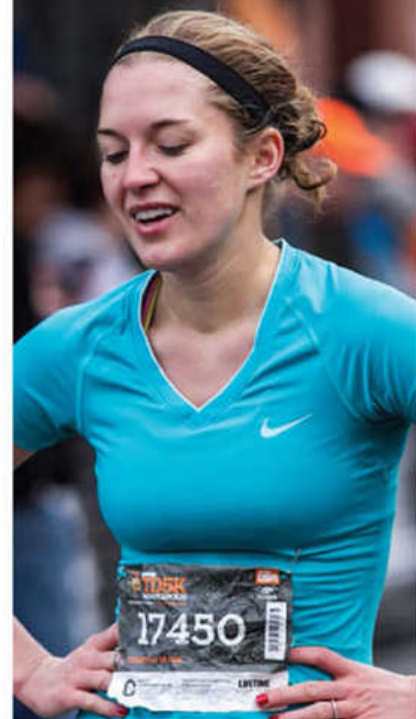
By Christiane Wolf, MD, PhD, coauthor of *A Clinician's Guide to Teaching Mindfulness*

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My all:

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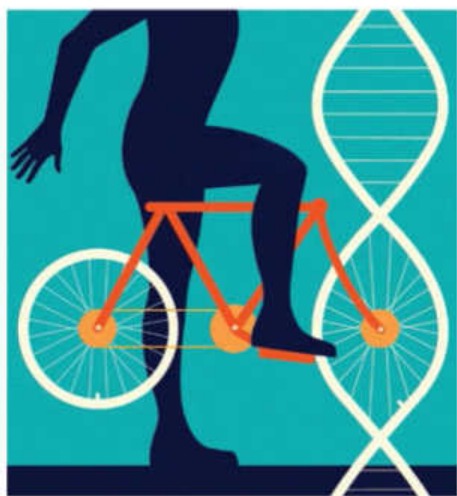
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WELL INFORMED

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Exercise Enhances Genes

ILLUSTRATION: STUART BRIERS



We've long known that exercise boosts our health and fitness but haven't well understood *how* it works at the genetic level. Now new research by the Swedish Karolinska Institutet is beginning to unravel the mystery of how exercise alters the function of our genes.

For the study, 23 men and women pedaled stationary bicycles with just one leg for 45 minutes four times weekly for three months; their other leg was unexercised and acted as a control. Researchers took muscle biopsies from each leg before and after the training period.

Not surprisingly, endurance improved in the exercised legs. But the training also changed their muscle cells at nearly 5,000 sites across the genome.

One key epigenetic change that exercise effected was methylation,

a complex biochemical process that controls protein and DNA synthesis throughout the body, among hundreds of effects. Other positive gene-level impacts of the training were improved insulin and inflammatory responses.

The findings may someday help us optimize our training efforts based on our individual genetic profiles, says senior author Carl Johan Sundberg, MD, PhD.

The study may also have broader implications for treating conditions like type 2 diabetes and cardiovascular disease, which are influenced by an individual's degree of physical activity, he says.

— Michael Dregni

WEB EXTRA!

For a Q&A with the study authors, see ELmag.com/exercisegenesQA.

SEEING RED CAN HARM YOUR HEALTH

■ Intense anger triggers a rush of adrenaline and cortisol into your bloodstream. This causes a spike in blood pressure, heart rate, and blood sugar, which your heart must work harder to control. If you frequently experience intense anger, it can cause long-term damage to the heart due to raised blood pressure and increased blood flow in coronary arteries. Those effects can damage artery linings and lead to plaque buildup, says Redford Williams, MD, a psychology and neuroscience professor at Duke University School of Medicine and coauthor of *Anger Kills*.

■ When people who are already at risk for heart disease have angry flare-ups, they dramatically increase their risk of a heart attack for two hours following the fit, according to research published in the *European Heart Journal* in February 2015. Surveying 313 cardiovascular-care patients, researchers found that those who had been feeling angry had an 8.5-times greater chance of a heart attack in the two hours post-outburst than they would under normal, less stressful circumstances.

■ A 2014 meta-analysis published in the *European Heart Journal* reviewed nine studies of a combined 6,400 patients and found a greater risk for stroke and arrhythmia during the two hours following an angry outbreak.

■ High levels of anger are associated with longer-term health issues, including excessive tobacco use, sleep disturbances, and insomnia, according to several studies, including a 2005 study of nearly 4,700 people published in the *Journal of Psychosomatic Research*.

Find helpful strategies for controlling your outbursts at ELmag.com/anger.

— Alexandra Smith



SMALL BEADS, BIG TROUBLE

Those plastic microbeads that add color, texture, and abrasive power to exfoliating scrubs, body washes, and cosmetics have long been causing problems for aquatic wildlife. Now the tiny beads may be a hazard for humans, too.

The pellets have been used in a growing number of products since the 1970s, but we've only recently started to understand the breadth of their potential negative effects.

Their tiny size allows the beads to pass easily through municipal water filters. Once they've entered the marine environment, the microbeads are slow to degrade — if they degrade at all. Indistinguishable from fish eggs eaten by wildlife, they can block and damage the animals' digestive systems.

Recently, some dentists and dental hygienists say they're finding the little bits of colored plastic embedded in patients' gums and in between their teeth, and are concerned about the oral-health dangers — especially periodontal disease — they might pose. Studies of such potential dental problems have not yet been done.

Some personal-care brands have stopped using microbeads, and others have committed to phasing them out or have switched to using natural exfoliants like apricot seeds and coconut husks instead.

Out of environmental concerns, six states — Colorado, Illinois, Indiana, Maine, Maryland, and New Jersey — now regulate the sale and use of products containing microbeads; legislation is pending in others, including New York and California.

You can avoid plastic microbeads — for both your body's and the environment's sake — by staying away from products that contain polyethylene, polypropylene, poly-e-terephthalate, or polymethyl methacrylate on the ingredients list. Voice concern to manufacturers and your legislators, and talk to your dentist about any health concerns.

— Heidi Wachter

ATHLETIC EVENTS

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Roseville and Saleha Abdulaziz's family received a goat from Heifer. The gift of a goat has changed their lives forever.

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Depression & Inflammation

If you suffer from depression, inflammation in your brain (and perhaps the rest of your body) may be part of the problem.

Research published in *JAMA Psychiatry* in 2015 found that neuro-inflammation can cause depressive symptoms, including sadness, "low mood," loss of appetite, and weight loss.

Inflammation is an essential natural response to injury and infection, and is key to maintaining immunity. But chronic, bodywide inflammation can be damaging and have an adverse rather than protective function. In the brain, ongoing inflammation can be triggered by stress, trauma, and toxicity, among other factors.

For the study, researchers from the University of Toronto, University of Mississippi Medical Center, and Toronto's Centre for Addiction and Mental Health used positron emission tomography (PET) to scan the brains of 20 patients with depression and 20 control participants without depression. The brains of people experiencing clinical depression showed roughly 30 percent more inflammation than those in the control group.

Depression is one of the most common mental-health issues in the United States, affecting some 16 million adults annually. Treating it can be a long, difficult, and hit-or-miss process, partly because psychiatrists have only a partial understanding of causes and cures.

By addressing inflammatory components of depression — rather than just the neurological ones — doctors may be able to approach treatment more effectively. Treatment strategies might include anti-inflammatory lifestyle recommendations and new prescription-medication protocols (clinical trials combining antidepressants with anti-inflammatories have shown positive results), as well as over-the-counter supplements such as omega-3 fatty acids and curcumin.

Lifestyle changes — including eating whole foods and avoiding gluten and processed fare — may get more emphasis in this new generation of treatments. For more on inflammation and neurological illnesses, see ELmag.com/grainbrain. For new insights into treating depression, go to ELmag.com/unstuck. — A.S.

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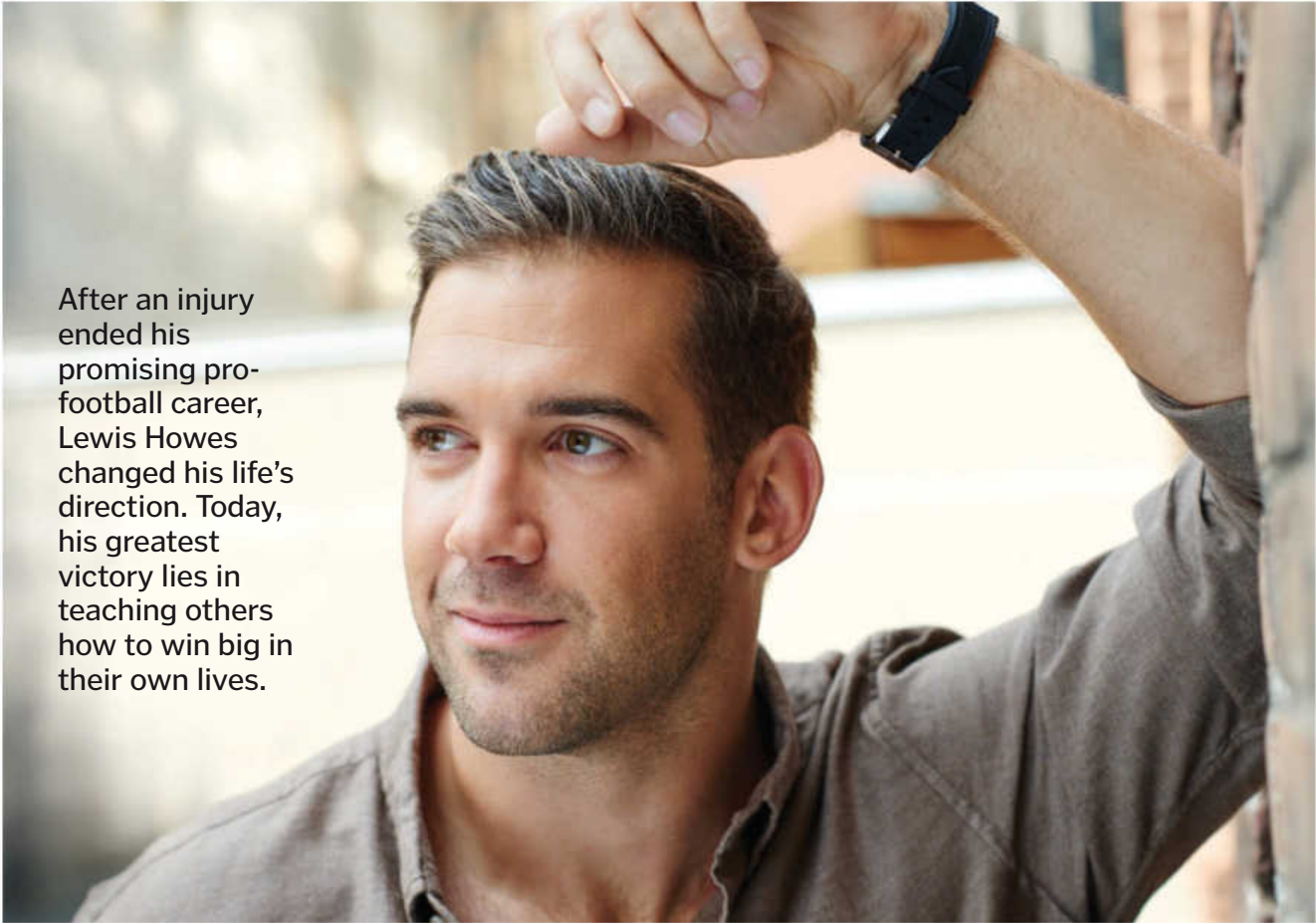
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After an injury ended his promising pro-football career, Lewis Howes changed his life's direction. Today, his greatest victory lies in teaching others how to win big in their own lives.

A Path to GREATNESS

By HEIDI WACHTER

It's a classic American success story: underdog kid overcomes tough odds to excel at his chosen calling. But Lewis Howes's tale comes with a few unusual chapters — and some very valuable lessons.

More than once, Howes has found ways to turn his tragedies into opportunities for growth and discovery. And now, as a business coach, podcast host, and author, Howes is using his experience to help others find their own bigger, better way.

Bullied and sexually abused as a child, Howes went looking for an outlet to channel his suffering into strength. He devoted himself to football and decathlon, becoming a rare two-sport All-American. But when he

was 24, a serious wrist injury ended his pro-football career, drove him into depression, and left him sleeping on his sister's sofa, searching for ways to get back into the game of life.

Knowing he needed to forge a new path, Howes dug deep: He owned his past choices, learned from his successes as well as his setbacks, and used the skills he had developed as an athlete — hustle, hard work, and a willingness to be coached — to turn his life around. More importantly, he began to *believe* he could win again.

“Much of the champion's mindset comes down to belief,” Howes says. “When athletes are interviewed after winning a big game and asked, ‘How did you do it?’ they often answer, ‘I worked hard and knew no one could

stop me. I am the greatest!’ Or they say, ‘I put all my faith in God.’ You’ve got to believe in something in order to take on the pressures of greatness.”

In his just-released book, *The School of Greatness*, Howes shares what he's gleaned from interviewing hundreds of greats — from the worlds of sports, business, and science — for his popular podcast of the same name.

Howes argues that people at the top of their game flourish not because they've avoided traumatic experiences or failures, but because they've used specific habits and tools to overcome adversity. His own comeback sheds light on how anyone can begin a personal journey toward the discovery of his or her own best gifts.

Q&A

Experience Life | What motivated you to get into sports, and how did your motivation change over the years?

Lewis Howes | Like a lot of kids, I felt like an outsider. I didn't have much confidence. I was the youngest of four and a gangly, skinny kid. When my brother went to prison for four years, other kids made fun of me, so I played by myself a lot.

I wanted to prove all the people who didn't accept me wrong. I put all my negative energy into sports as an outlet, because I had to put that aggression somewhere — and it worked. That negative fuel worked to turn me into an effective winner.

This was the challenge: I would win but I'd feel unfulfilled and empty. Right after competition I'd feel lonely, and I didn't understand why.

Years later, I realized that I was doing it for all the wrong reasons. My motivation wasn't coming from a place of inspiration; it was coming from an adversarial, defensive place. I wanted to ensure people wouldn't hurt me.

Once I started to shift my attitude toward inspiration, love, joy, and passion instead of anger and resentment, a weight lifted off my shoulders. It's been an incredible experience ever since.

EL | How do you define "greatness"?

LH | Basically, greatness is making the most of the gifts and talents you were born with to achieve your dreams, and creating the maximum impact on the people in your world with those talents. It looks different for every person, though. There are a million ways to be great!

EL | You describe vision as being essential to greatness. Why? And how do we connect with our own?

LH | Without a vision, we're just wandering from thing to thing. We're picking up the scraps and tasks that others didn't want in *their* vision, and we wind up going through life unfulfilled. We keep asking ourselves: *Why am I not getting what I want? Why am I unhappy? Why am I frustrated? Why am I a victim?*

To unlock your vision, you need to ask

yourself a very different set of questions: *What do I want every single day to look like? What do I want to create daily? Who do I want to spend my time with?*

We also need to give ourselves permission to say exactly what we want and go after it. Often, we don't feel like it's possible or the right thing to do, and we're concerned that others won't support us. But we have only one life, so why spend it living the way other people think we should when we can experience the most magical time if we let ourselves?

EL | One of your eight principles of greatness is "developing hustle." What is hustle and why is it important?

LH | According to some of the greatest psychologists and leaders in the world, a key ingredient shared by successful people is grit or perseverance. I've experienced this idea as "hustle."

As an athlete, I wasn't the fastest, strongest, or best, but I knew that coaches loved the athletes who hustled the most. I didn't have natural gifts, but I had the mentality that I would do whatever it took — investing my body and my mind, and putting in the work — to make the team, to be a starter, and to be great.

I've applied this to my business and life, too. Hustling is a thing you're doing in service. I'm willing to do whatever it takes to serve people and to show them how much I care. I'm going to network and put in the extra hours. I'm going to prepare myself more than the other person so I'm ready to take advantage when opportunities come my way.

To be great, you need to put in the work. You need to hustle.

EL | In your book, you share what you call "personal grounding statements," which are basically very clear, positive affirmations of intention and values. Why does this kind of grounding play such a critical role in your life?

LH | Grounding lays the foundation for us to win. If we go into the big moments of our lives — a first date, a sales pitch, or a big sports game — without being intentional about what we want to create, we're setting ourselves up for failure.

Taking a moment — be it 30 seconds or 10 minutes — to get clear on what our vision is and to consider why we're doing something provides us a better chance to create the results we want.

“We need to give ourselves permission to say exactly what we want and to go after it.”

EL | You focus a lot on the value of cultivating emotional intelligence. Why?

LH | This is something I so wish we were taught in school: One huge key to success in anything — be it creating a business or a family — is having strong relationships. And emotional intelligence is essential to fostering quality connections with others.

When you understand your own emotions and triggers, you can learn to be present in difficult situations and not let your emotions control you. This allows you to have a better ability to try to understand what other people are experiencing, which brings you deeper intimacy, trust, and love.

EL | Some people might consider your comeback a miracle. What can people do to create miracles in their own lives?

LH | Follow their dreams! Because what else are we on this earth to do? When we use all the gifts we have in pursuit of our dreams, we inspire our family, friends, and communities. Living our dreams allows us to make the biggest impact on others, and to me, greatness is helping the maximum number of people.

As Olympian Wilma Rudolph said, "Never underestimate the power of dreams and the influence of the human spirit. We are all the same in this notion: The potential for greatness lives within each of us." 🌟

Heidi Wachter is a staff writer for *Experience Life*.



VIDEO EXTRA!

For more game-changing insights from Lewis Howes, watch the behind-the-scenes video at ELmag.com/videos.

How to Do 3-PART Breathing

When you're feeling stressed, overwhelmed, or in need of a quick energy boost, this simple technique can bring a breath of fresh air.

Take a moment to notice your breathing. Is it deep or shallow? Do you feel it in your nostrils, chest, or abdomen? Or maybe you feel nothing at all.

It's easy to ignore our breath, but when we give it our full attention, it can be a

powerful tool for relieving stress, heightening awareness, regaining focus and composure, and reconnecting with the present moment.

Want to reoxygenate and reenergize your body while you calm your nervous system? Try this simple, do-anywhere technique.

Preparation

Sit up straight, yet relaxed. Visualize your midsection as a balloon: The belly is the broadest section, and the upper chest is the narrower section below the opening.

Tip: You can do this exercise standing up, lying down, or in any comfortable seated position.



3-Part Inhalation



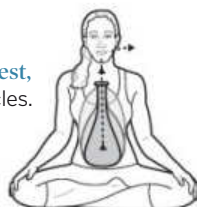
(1) **Belly:** Begin your inhale, sending your breath to the base of the belly, feeling it fill like a balloon. (2) **Rib Cage:** Expand your breath, allowing it to fill your lower back and rib cage. (3) **Chest:** Complete the inhalation by filling the very top of your lungs and upper chest.

Tip: If you have difficulty feeling your breath, place your hands on the parts of your body where you are directing your breath, and notice them expanding as you inhale.

3-Part Exhalation

Exhale slowly in the reverse order, expelling air from **chest**, **rib cage**, **belly**. Repeat the full exercise for about 10 cycles.

Tip: The exhalation will sound like this: *exhale-pause, exhale-pause, exhale-pause*.



Let's not sugarcoat things.

We're poisoning our kids.

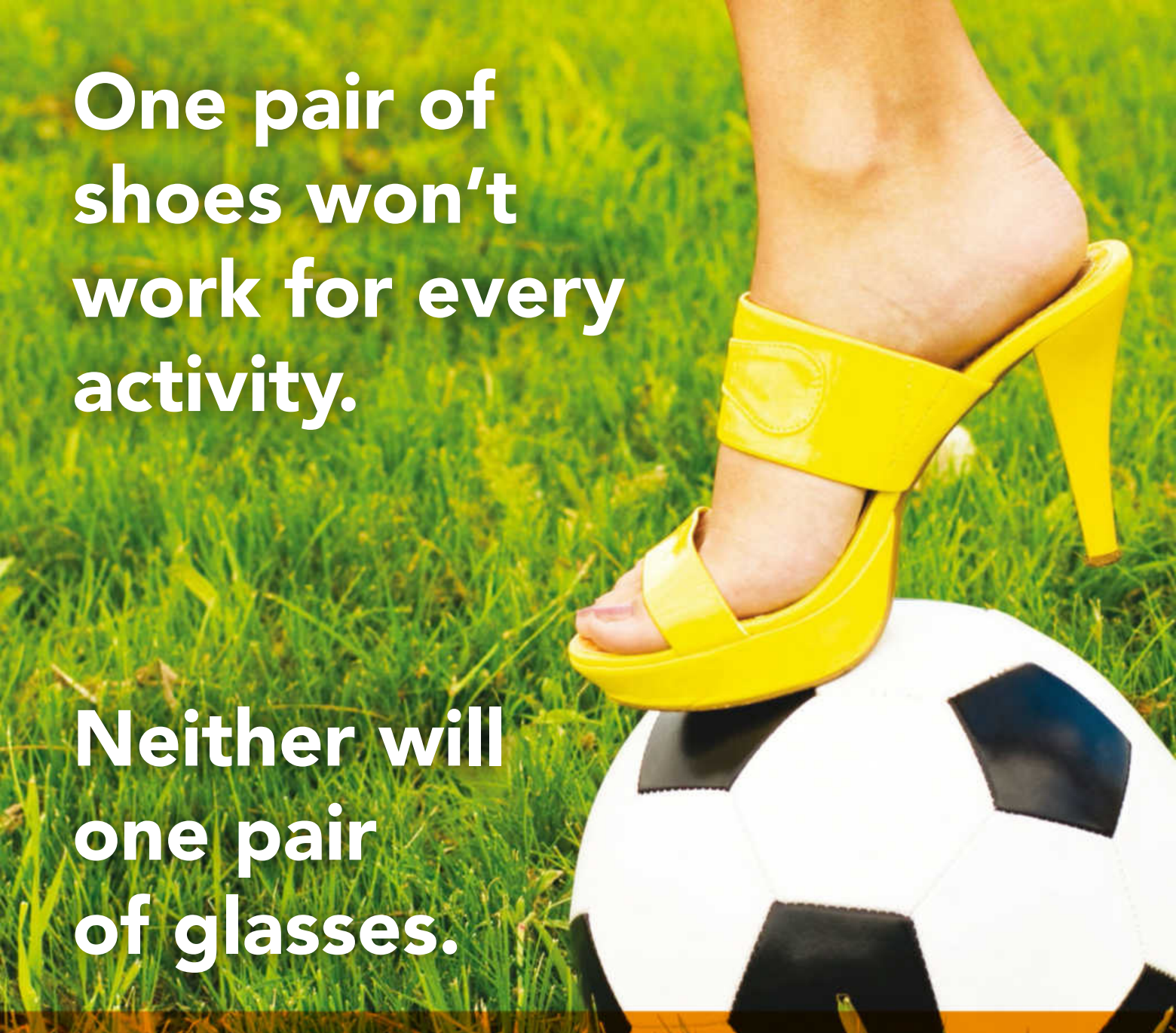
The food they're eating is toxic. It's time to get mad. To make change happen.
To stop with the processed everything. The hormones, the antibiotics, the artificial.
To begin with more of what's real. What's whole. What's healthy.

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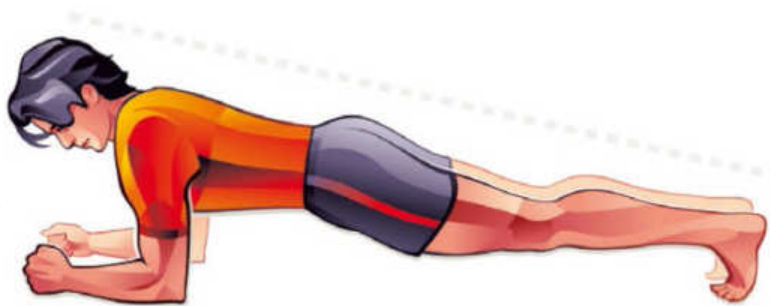
A close-up photograph of a person's foot wearing a bright yellow, high-heeled, open-toed sandal. The foot is positioned as if about to step on or is stepping on a black and white soccer ball. The background is a lush green grassy field.

**One pair of
shoes won't
work for every
activity.**

**Neither will
one pair
of glasses.**

While the average American boasts 19 pairs of shoes, they often only own one pair of glasses to accommodate their ever-changing lifestyle. Luckily, there are varying types of frame styles to coincide with all kinds of activities, while keeping you looking on-trend for whatever the occasion may be. There are lens coatings and treatments that offer protection from everything from digital screens to the sun's UV rays and so much more. Today's top-of-the-line materials make even the strongest prescription lenses light enough to comfortably wear anywhere. Plus, they can be inserted into just about any type of frame, combining personal fashion with true technology! All in all, multiple pairs of glasses make just as much sense as multiple pairs of shoes. Get even more information at thevisioncouncil.org

Prehab Your Body



Injury-proof yourself with these prehabilitation mobility moves.

By ANDREW HEFFERNAN, CSCS, GCFP

A chronically sore lower back. A tweaked ankle. A frozen shoulder. If you carry battle scars associated with your active lifestyle, you're likely aware of the cruel irony of working out: Exercise can be hazardous to your health.

But it doesn't have to be that way, says Kate Galliett, NASM-PES, creator of The Unbreakable Body, an injury-prevention program designed to shore up your body's natural weak points.

Most exercise-related injuries are preventable, she says. By training your body to be durable and resilient, you protect it not only from the rigors of

long runs and heavy deadlifts, but also from everyday mishaps.

"You crawl under a desk to fetch a dropped pen at the office, or go up for a lob on the tennis court. That's when you're vulnerable to a tweak — or worse. Sometimes you move weird. You need to be ready for it," Galliett says.

Injury-prevention exercises known as prehabilitation (versus the post-traumatic movement protocol known as rehabilitation) expose your body and brain to novel positions.

By breaking out of habitual movements, your body learns what to do when life or sport throws something

new your way. In fact, a 2005 study found that prehab drills could reduce ACL injuries among female soccer players by as much as 88 percent.

Prehab also irons out muscular imbalances, resulting in better posture, improved performance, and more efficient, pain-free movement throughout your day, Galliett says.

"It's great to feel the burn and work up a sweat," she says. "But prehabilitation training has a longer-term focus: It may pay off 10 or 20 years down the road, when everyone else is getting stiff and injured, and you're still going strong."

Six Pillars of Strength

Shoulder-blade strength

Postural strength

Torso strength

Glute strength

Hip strength

Foot strength

Stabilizing and strengthening the body starts from the ground up. Workout designer Kate Galliett has identified six key areas of focus that, in most people, lead to healthier movement and better durability.

If one of these areas is weak, it can affect the others, Galliett says. But if all six areas are working well, chances are the rest of your body will, too.

"Each area communicates its level of mobility, control, and strength to the others," she says. "Unstable feet lead to unstable shoulders. Poor glute strength weakens the core. It's all related."

The workout on the following pages develops these Six Pillars of Strength.

You can use any or all of these six moves in several ways:

- Before or after a regular workout
- Between sets of exercises during a strength-training workout. (See the "Alternate with" recommendation along with each exercise.)
- At any time throughout your day. (Choose one or two moves that you find challenging and do them for 30 seconds up to 10 times a day — during breaks from work, while waiting in a line, or while watching TV.)

Leg Drop Hands Into Wall

Pillars Worked:

Shoulder-blade strength

Torso strength

Reps: 8 to 15

Alternate with: Pull-ups



Setup

- Lie with the top of your head about 6 inches from a wall, body perpendicular to the baseboard.
- Press your hands flat against the wall, fingers pointed toward the floor and upper arms parallel.
- Press your lower back into the floor.

Move

- Maintaining this position in your upper body, lift your knees so they form a 90-degree angle with your hips.
- With your lower back pressed firmly into the floor, slowly lower your heels to the floor and back to the starting point.
- To make the movement easier, bend your knees less than 90 degrees so you can touch your heels to the floor closer to your body.

Banded Glute Bridge

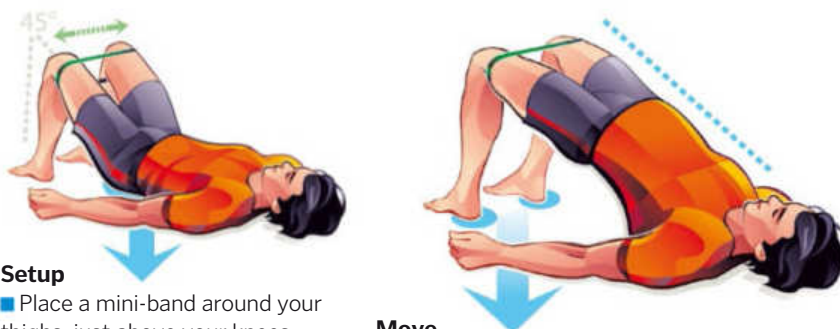
Pillars Worked:

Glute strength

Hip strength

Reps: 8 to 15

Alternate with: Barbell back squats



Setup

- Place a mini-band around your thighs, just above your knees.
- Lie on your back, bend your knees, and place your feet flat on the floor, close to your glutes.
- Brace your abs, press your lower back into the floor, and widen your feet until you feel tension on the band.

Move

- Maintaining tension on the band, squeeze your glutes, push your heels into the floor, and lift your hips off the floor until they are in line with your knees and shoulders. If you feel strain in your lower back (as opposed to your glutes and hamstrings), don't raise your hips up as high.
- Lower your hips back to the floor, and repeat.

Reverse Table

Pillars Worked:

Shoulder-blade strength

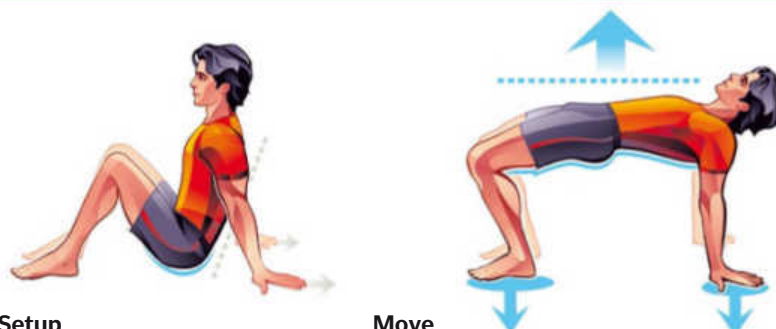
Torso strength

Glute strength

Hip strength

Reps: 8 to 15

Alternate with: Overhead press



Setup

- Sit with your legs bent and feet flat on the floor, hip width apart. Place your hands flat on the floor behind you, fingers pointing back.
- Squeeze your glutes and flatten your lower back.

Move

- Push into the floor with your feet and hands, lifting your hips until your body forms a straight line from your shoulders to your knees (or as high as you can go in this position).
- Press your chest toward the ceiling.
- Pause, squeezing your glutes, hamstrings, and upper body.
- Reverse the movement, pause, and repeat.

Hip Hike

Pillars Worked:

Torso strength

Hip strength

Foot strength

Reps: 8 to 15 per side

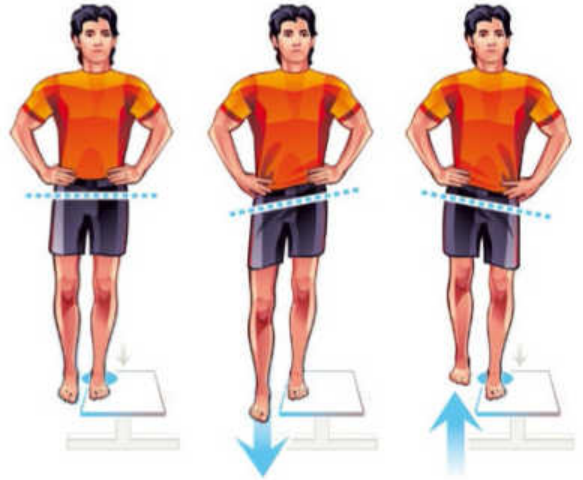
Alternate with: Deadlifts or pushups

Setup

- Stand on a box or a gym step about 6 inches off the ground or higher.
- Walk to the edge so that your left leg is on the box and the right one is hanging off.
- Place your hands on the tops of your hip bones and press your left foot into the box, until the angle of your hips is level with the floor.

Move

- Standing tall, allow your right hip to sink toward the floor as far as is comfortably possible.
- Reverse the movement, pressing through your left leg to lift the right hip as high as comfortably possible.



Four-Point Squat

Pillars Worked:

Shoulder-blade strength

Postural strength

Torso strength

Reps: 5 to 10

Alternate with: Any core exercise (e.g., plank)

Setup

- Stand with your feet just wider than shoulder width, toes turned slightly out.
- Raise arms overhead.

Move

- Fold forward, reaching your fingers to the floor.
- Keeping your hands on the floor and your lower back in its natural arch, drop your hips as close to the floor as you can.
- Lift your chest and head to look at the horizon.
- Raise your arms overhead (or cross your arms over your chest).
- Keeping your torso erect, arms raised, and gaze forward, press through your heels and stand up.



Elbow Plank With Reach-Through

Pillars Worked:

Shoulder-blade strength

Postural strength

Torso strength

Glute strength

Hip strength

Reps: 8 to 15

Alternate with: Lateral lunge

Setup

- Assume a plank position with forearms on the floor, elbows under your shoulders, and your lats, abs, and glutes engaged. Your body will form a straight line from head to heels.

Move

- Without dipping, swaying, or rotating, lift your left arm off the floor and reach underneath your body, behind your right elbow, as far as possible.
- Return to the plank position and repeat the movement with the opposite side.
- Alternate sides to repeat.



Andrew Heffernan, CSCS, GCFP, is an *Experience Life* contributing editor.



WEB EXTRA!

For more prehab ideas, visit ELmag.com/prehabwo.



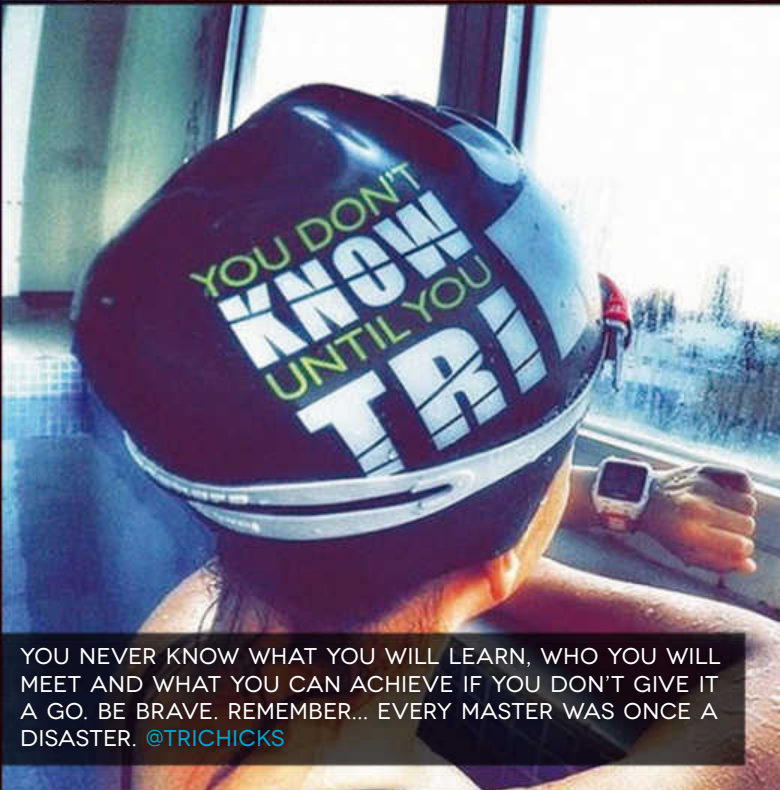
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Your Qs

By NICOLE RADZISZEWSKI

How long does it take for missed workouts to result in lost fitness?

What's the trick to dressing for outdoor workouts during winter?



Fitness Fix

LOSE YOUR SLOUCH



Q If I miss a couple of workouts, I panic that I'm getting out of shape. How long does it really take?

A It depends on a number of factors, including how fit you were in the first place and what you do during your time away from training. In addition, different types of fitness, such as cardiovascular or strength, will be affected differently.

Detraining (which basically means losing what you've gained from your training) affects cardio fitness faster than strength, says Ben Greenfield, MS, CSCS, an exercise physiologist and strength coach in Spokane, Wash.

Total bed rest will cause detraining a lot faster than a mere break from your workouts.

Studies show that within two to four weeks of curtailing your fitness activity, your heart starts to pump blood less efficiently and your VO_2 max (your ability to take in

and use oxygen) begins to decrease significantly. Within three months, most people's cardio fitness returns to their pretrained state.

Your strength, on the other hand, will diminish less quickly during periods of inactivity: Studies have found that people typically maintain at least some level of their previous strength gains for about four weeks.

It's worth noting that newbies tend to lose cardio *and* strength fitness more quickly than conditioned athletes do. Moreover, a slew of other physiological changes can occur with detraining, including dysfunctional hormonal responses and changes to muscle fibers.

Despite all of this, for many exercisers, the psychological impact of taking time off outweighs the physical toll of missing a couple of workouts, says Molly Galbraith, CSCS, a strength coach in Lexington, Ky., and cofounder of Girls Gone Strong.

To combat this negative mindset, she recommends a perspective shift: "I think it's important to think *long*," Galbraith says. "It doesn't matter if you get in the gym today, it doesn't matter if you get in the gym tomorrow. It matters that you're in there 20 years from now."

And, sometimes, taking time off can be a good thing, she notes. After all, taking time for recovery between workouts is what allows you to get stronger.

Staying in Shape

When You're Out of the Game

These tips from strength coach Molly Galbraith, CSCS, can help you stay positive and make the most of your situation when you're sidelined.

■ **Take the long view** if you have an illness or injury forcing you to miss workouts. You may have an urge to start training before you're fully healed, but that may set you up for further injury and additional time off. By giving your body time to recover, you can come back fully rested and ready to go.

■ **Uncover the root of the problem**, especially if your injury or pain is recurrent. Working with a medical professional can help you nip ongoing issues in the bud and find ways to avoid them in the future.

■ **Focus on what you can still do**, and do it. People who are on bed rest experience muscle atrophy at a much faster rate than those who continue to partake in daily activities, so don't look at being injured as an all-or-nothing situation. Do what you can, safely.

■ **Look for other outlets** to manage stress, especially if you're someone who typically achieves this through exercise. Going for walks or practicing meditation can help you stay connected to your body while relieving stress.

■ **Set small, reasonable goals** for when you do return to exercising. Avoid comparing yourself with where you were prior to taking time off.



GOT A FITNESS QUESTION OR CONUNDRUM?

Email us at AskEL@experiencelife.com.

Q What should I wear for an outdoor workout when it's cold? Is it better to over- or underdress at the start?



A Since your body temperature rises during vigorous exercise, common advice dictates dressing as if it's 20 degrees F warmer outside, says Anne Pezalla, an RRCA running coach in Oak Park, Ill.

Everyone is different, though, and “you some-

times have to learn from your mistakes to see what works for you,” she says.

For outdoor winter workouts, Pezalla says, it's better to wear too much at first and be a little warm than to wear too little and be uncomfortably cold. She recommends dressing in layers that you can adjust as you start warming up, such as a jacket with removable sleeves, arm warmers that you can pull down, or a headband that can be folded to cover or

uncover your ears.

It's also important to choose fabrics that wick away moisture. In cold weather, this means wearing a base layer of wicking fabric that fits close to your skin. Socks made from natural fibers such as wool or mohair will not only keep your feet warm, but they'll also keep them dry and prevent blisters. Avoid cotton, since it traps moisture when you sweat, causing your body to lose heat faster.

Fitness Fix

LOSE YOUR SLOUCH

A forward rounding of the back is technically known as kyphosis, and the first step to getting rid of it is understanding what type you have — structural or postural.

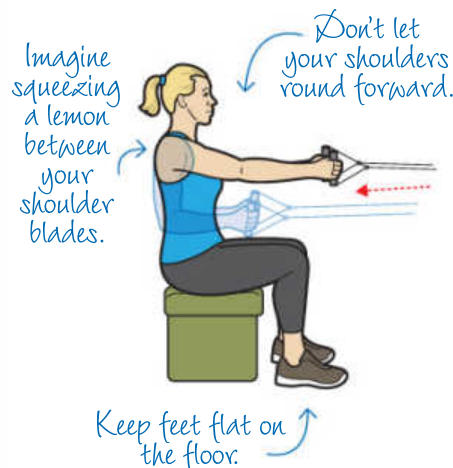
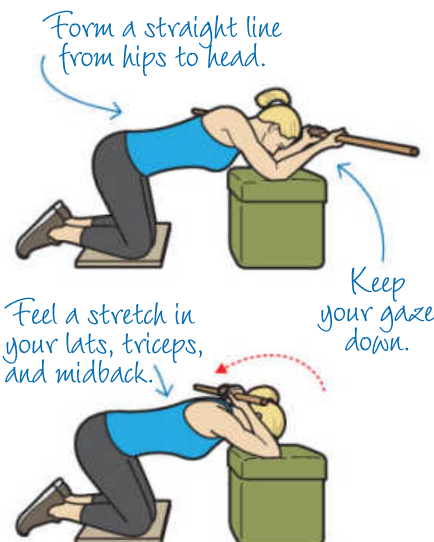
Both types can result in limited mobility (specifically with overhead movements and neck rotation), suboptimal breathing, and, in some cases, pain and other complications. Where they differ is in their causes and remedies.

Structural kyphosis results from changes to the vertebrae caused by osteoporosis, disc degeneration, genetics, or other disorders. Addressing structural kyphosis may require a consultation with a pro — and, in extreme cases, surgery.

Postural kyphosis is often the result of how you move and carry yourself in life, as well as your general emotional well-being, says Christopher Johnson, PT, a physical therapist in Seattle. Sitting or standing hunched over for long periods of time, overtraining the chest muscles and front of the body, and a sedentary lifestyle are all factors. Postural kyphosis can often be improved with awareness and exercises like those here.

DOWEL MOBILIZATION

- Kneel in front of an ottoman or flat surface of similar height, with your hips slightly behind your knees.
- Holding a dowel in both hands, palms facing up, place your elbows on the ottoman, lining them up with your forehead. Your hands should line up with the top of your head.
- Exhale as you push your hips backward and bring the dowel behind your head and toward the base of your neck. Hold until you finish your exhale.
- Inhale as you return your hips, shoulders, and arms to the starting position.
- Repeat three to five times.



SEATED ROW

- Attach a resistance band with handles to a secure surface at about seated chest height (or use a cable-pulley machine).
- Grasp the handles with palms facing each other.
- With arms outstretched, sit on a bench facing the band's anchor point. There should be slight tension in the band before you begin the exercise.
- Pull the handles toward your body, squeezing your shoulder blades together at the end of the movement.
- Extend your arms to return the handles to their starting point.
- Repeat 12 times. 🏋️

Nicole Radziszewski is a writer and personal trainer in River Forest, Ill.

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Fit for My Family

How a single mom emerged from a challenging year healthier, happier, and more connected with her kids.

BY SHAWNA GREEN

In January 2014, I packed up my three sons and left my husband. After years of living in a volatile situation, I had finally gathered up the courage to make a change. I felt fear, anxiety, and heartbreak — but in spite of all that, I felt the strength to do something better for myself and my kids.

I was 38 years old. I had been an at-home mom for nine years, and I knew what I needed to do. I needed to get myself and my kids out of crisis mode. I needed to find a job with benefits. I needed to be strong so I could create safe, healthy, peaceful lives for all of us.

And then — wham! — while I was trying to figure that all out, an umbilical hernia cropped up out of nowhere and sent me to the hospital for emergency surgery. It wasn't exactly what you would call a happy new year.

Once I recovered from my hernia surgery four weeks later, I also decided to train for the Chicago Marathon — an event that had always been on



Above: Shawna Green's three boys were her biggest fitness motivators — and cheerleaders. The team regularly takes walks in the evening after cooking and eating healthy meals together. Inset: Signing up for the Chicago Marathon was a bold move, but the training kept Shawna focused.

my bucket list. My friend dared me to sign up and said she would coach me through the entire process. I was eager to kick-start my new life, and I thought committing to running a marathon in October would motivate me.

In the midst of all this, I was also enrolled in an eight-week program to become a certified nursing assistant, with a goal of eventually completing nursing school.

But my plan wasn't realistic. I completed the nursing-assistant training and got a job, but I had to drop out of nursing school; there simply weren't enough hours in the day. No matter how motivated I was, I could get by on limited sleep for only so long.

I'd also thought that training for the marathon would help me get in shape. But I was overly enthusiastic and wound up with bursitis and IT band tendonitis within a few weeks.

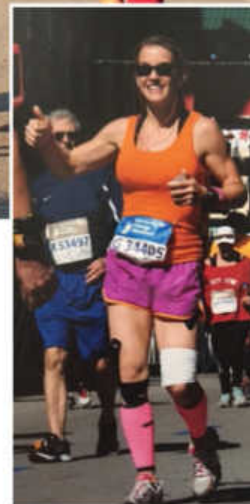
I realized that I needed to be more mindful about my goals

and how I was going to reach them. My confidence had been shaken. I needed to figure out how to get my groove back.

Taking the Challenge

I had been a member at a Life Time Fitness club in suburban Chicago for nine years. It was my refuge throughout my marriage, a place where I would take my boys swimming and meet friends for 9 a.m. workouts followed by a kaffeeklatsch in the café.

My membership was the one luxury item I allowed myself after the kids and I moved out. It was like a second home for us — an oasis from all the



Success Summary

Meet: Shawna Green, 39, certified nursing assistant and professional face painter; single mom of three boys (ages 10, 5, and 3), who lives in Bartlett, Ill.

Big Achievements: Improving her confidence by being mindful of her choices; completing a marathon; teaching her children better eating habits.

Big Inspiration: "I knew I couldn't give up. My boys were my inspiration. I decided to make better choices for them."

What Worked: "Cutting out sugar, dairy, and wheat helped jump-start the changes in my body." Shopping for groceries as a family helped encourage the boys to experiment with and embrace new foods.

stress. But I was using it more as an escape than as a place to get fit.

At the same time, I had fallen into the trap of thinking I didn't have enough time to cook. We were flying by the seats of our pants and spending money carelessly on fast food, using it as a distraction. I fed my kids junk food to make them happy. It really didn't do anything but make them sluggish.

Then, one day in August I noticed a promotion for the 90-Day Challenge and decided to sign up. It turned out to be the catalyst I needed to get everything in my life on track again.

A Powerful Influence

As part of the program, I met with a nutritionist, who took me grocery shopping. I brought the boys along and we learned about the importance of eating a colorful diet.

After that trip, we started going on family outings to the grocery store, and the boys would grab a cart to fill with fruits and vegetables. I realized I had been wasting a lot of money on processed foods. And for the first time, I felt proud to be that mom who had a cart full of colorful produce and not all those fake-food snacks we used to buy.

Preparing meals became a family event. We started having fun together

I felt proud to be that mom who had a cart full of colorful produce and not all those fake-food snacks we used to buy.

in the kitchen trying new recipes. My boys loved helping out with prepping, peeling, and seasoning the food. They also loved making their own variety of smoothies.

Soon they started asking for protein shakes for breakfast and snacking



Shawna (lower left) leaned on this group of fitness friends in Bartlett, Ill., who participated in a mud run to raise awareness for domestic violence. Each member agreed to work as a team and set the pace by the slowest runner so no one was left behind.

on whole cucumbers and tomatoes. They'd say, "Mom, can we have a salad? Can we have a hard-boiled egg?" My middle son, who was 4 at the time, even started saving money to buy hard-boiled eggs at the LifeCafe, because he liked to eat them on the car ride home. *Holy cow*, I thought. *Who are these boys? Have I actually influenced them with my good behavior?*

In the meantime, I cut out sugar, wheat, dairy, and alcohol. I also started working with a trainer, who taught me how to build strength with resistance training, including squats and free weights.

Within a week, I noticed a change in my skin. Within two weeks, I was sleeping like a baby. My body was resetting itself.

After a few weeks, my son said he could see my muscles popping out!

At first my friends teased me. They couldn't believe I was eating almonds instead of chocolate and asking for water instead of wine at a party. But I stuck with my clean-eating regimen

and my strength workouts. I was dedicated. And the results came quickly.

A Family United

The best part of getting healthy was the effect it had on our whole family. As I slowed down and regained balance, I started treating my boys better. Instead of running around and appeasing them with treats when they were cranky, I started including them in my life — in everything I was doing. We became a team united toward a common goal, and they were my cheerleading squad.

I let go of the toxins in my life. I abandoned unhealthy habits and unhealthy relationships, and made space for family dinners and bike rides with my kids. Our household became calmer and a lot more fun.

In October 2014, everything seemed to fall into place. I signed my divorce decree. I got a job working in private-home healthcare. I won the 90-Day Challenge in my division. And I even ran the Chicago Marathon. It took me six hours, but my boys were there to cheer me on as I crossed the finish line — and that meant everything. 🏆

What Didn't Work:

"Eliminating treats completely. I still love to have chocolate sometimes."

Words of Wisdom: "If you don't confront it, you can't conquer it. Surround yourself with like-minded people and supportive community, and you'll all reap the benefits."

TELL US YOUR STORY!

Have a transformational healthy-living tale of your own? Share it with us (and read more stories) at [ExperienceLife.com/success-stories](https://www.experiencelife.com/success-stories).

American Wonders, REVISITED

Our nation's most iconic vacation destinations are that much more awe-inspiring when you experience them up close under your own steam.

BY SARAH TUFF DUNN

America's greatest natural wonders are the subjects of endless vacation-photo backdrops. But you can't really experience the full glory of these places from a scenic overlook.

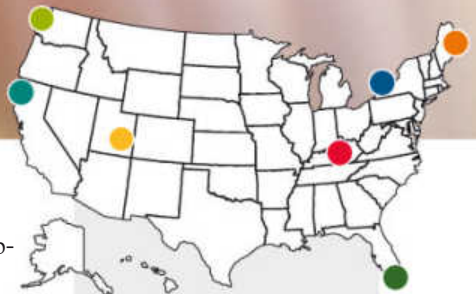
To get the best of them, you have to get out into them. And to do that takes muscle and an appetite for exploration.

From the California redwoods to Kentucky caves, active adventures abound. Most offer you the opportunity to move your body as a means to not only reach your destination, but also to amplify your enjoyment of these popular vacation spots.

Activities like hiking, kayaking, climbing, skiing, and rappelling (to name just a few) create a multisensory, kinesthetic connection to your surroundings, helping to stamp an indelible impression you'll carry with you long after you return home.

No matter which region of the country you find yourself in, there's no shortage of unique landscapes awaiting exploration.

"Ours is a large country graced with a stunning diversity," says Bill Flower, the former Outings Committee chair for the Sierra Club. Here are seven destinations Flower deems "some of the most remarkable places here or anywhere else on Earth."



- **Niagara Falls**
- **Acadia National Park**
- **The Everglades**
- **Red Rock Country**
- **Redwoods National and State Parks**
- **Mammoth Cave National Park**
- **Hoh Rain Forest**



Niagara Falls

Where: Niagara Falls, N.Y.

Who: Daredevils and Niagara go hand-in-hand, but this adventure is for anyone who can put one foot in front of the other — and who doesn't mind the cold.

Why: You're likely familiar with the splendor of the falls in summer, but Niagara (the collective name for the three falls straddling the United States–Canada border) is no less magnificent in the off-season. Each winter, wind, water, and wicked low temperatures combine to create crystalline natural snow and ice sculptures. Take in the sights, then warm up by cross-country skiing or snowshoeing in nearby parks. With the whisper-quiet hush instead of the din of tourist crowds — the Maid of the Mist boat tour and other nearby attractions are in hibernation — the cascades are even more magical in the coldest of temperatures.

When: Niagara is at its loveliest and most peaceful in winter, when the tourists leave and Mother Nature takes over, leaving a breathtakingly beautiful sight, explains Angela Berti of Niagara Falls State Park. Select trails are open throughout the cold season.

How: Rent snowshoes or cross-country skis from Reinstein Woods Nature Preserve and Environmental Educational Center (dec.ny.gov), about a 40-minute drive from the 400-acre Niagara Falls State Park (niagarafallsstatepark.com).

Cost: \$5 per pair for snowshoe or cross-country ski rentals.

Difficulty: Moderate, depending on snow and ice conditions.

Redwoods National and State Parks

Where: Coastal northern California

Who: History buffs, green-minded individuals, and groups looking for a bonding experience among the branches of the California redwoods.

Why: The redwood forest that spreads from Oregon to Big Sur has been around for 20 million years. Many trees are more than 2,000 years old, and some stand 300 feet tall and are 20 feet in diameter. These so-called living fossils — less than 3 percent of the original forest still stands — are a jaw-dropping sight. Hike through the forest to witness these arboreal giants from the ground up, or get a bird's-eye view — and an adrenaline rush — with a ziplining tour.

When: Temps range from the 40s in the winter to the 60s in the summer. Take a raincoat in the wetter months (October through April).

How: Hike in from any one of several entry points (nps.gov/redw). For ziplining trips, contact Mount Hermon Adventures (mounthermonadventures.com).

Cost: Zipline canopy tours start at \$89 per person.

Difficulty: Easy to moderate; previous experience not required for canopy tours.



Hoh Rain Forest

Where: Olympic Peninsula, Wash.

Who: Whitewater fans and other river rats.

Why: Twelve to 14 feet — yes, *feet* — of rain fall here each year. Embrace the wetness by rafting class II and III rapids along the glacier-fed, 50-mile-long Hoh River, a turquoise ribbon that spills from the 7,000-foot Mount Olympus and weaves among the deciduous and coniferous trees.

When: February through April for more challenging rapids (ages 10-plus); May through October for more placid ripples (ages 5-plus).

How: Reserve a half-day or daylong trip with Rainforest Paddlers (rainforestpaddlers.com).

Cost: \$44 for a half day; \$79 for a full day, including lunch.

Difficulty: Moderate; the rapids are appropriate for novice and intermediate rafters.



Red Rock Country

Where: Southern Utah

Who: All outdoorsy types.

Why: Gorges drop 2,000 feet in Zion National Park, and natural bridges reach for the sky in Arches and Canyonlands National Parks. Explore it all by cycling along Slickrock Trail near Moab, hiking through Delicate Arch, or slipping through slot canyons in Zion. Go horseback riding through Bryce Canyon, or raft the Green River. Head for the hiking trails of the San Rafael Swell, among the least-explored destinations of the American Southwest. And don't miss the cool hoodoo rock formations of nearby Goblin Valley State Park.

When: Winter days are bright and warm, with cool nights — perfect for outdoor adventures.

How: Utah Travel (utah.com) provides plenty of info; Southwest Adventure Tours (southwestadventuretours.com) offers guided tours; Redtail Aviation (redtailaviation.com) will take you on an air tour of Red Rock Country.

Cost: \$10 for campers and upward of \$1,500 per night for those who opt to slumber in the opulent Amangiri resort. Redtail Aviation tours start at \$129 per person.

Difficulty: As easy as strapping on a seat belt, or as hardcore as clipping into technical climbing gear for a seven-day stretch.



Mammoth Cave National Park

Where: Mammoth Cave, Ky.

Who: Brave folks who are ready to tackle 500 steps in pitch blackness and crawl through tight spaces.

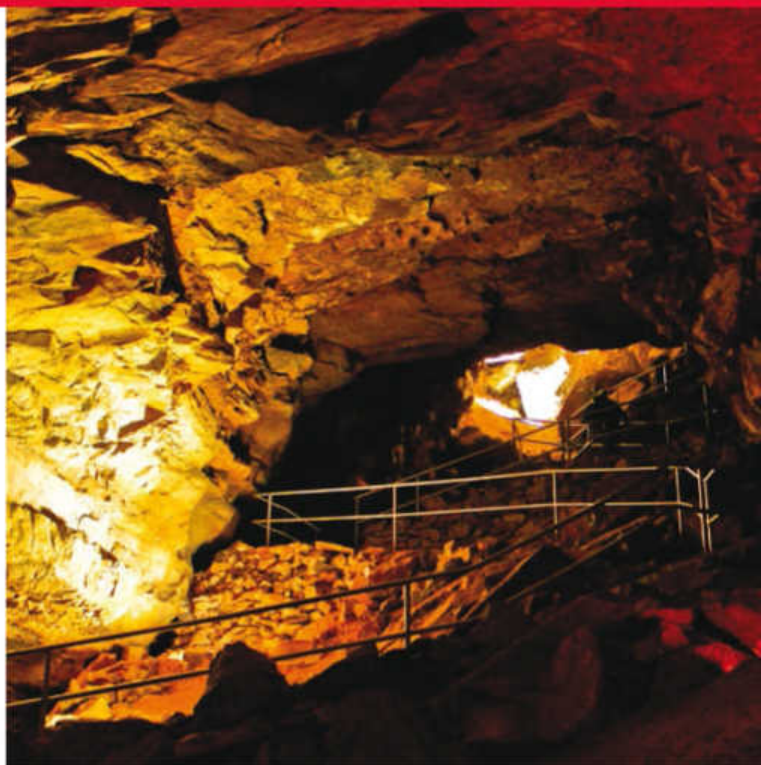
Why: More than 400 miles of this “grand, gloomy, and peculiar” limestone labyrinth have been mapped, making mysterious, mind-blowing meanders through its cracks and crevices a Kentucky must-do. There are geology lessons here, too, as you'll learn about the ancient sea that left behind the cave's foundation some 325 million years ago.

When: Any day except Christmas.

How: Book a guided, six-hour, five-mile Wild Cave Tour through Mammoth Cave National Park (nps.gov/macaca).

Cost: \$55.

Difficulty: The Wild Cave Tour is “extremely strenuous,” but Mammoth has many other cave tours for all ages and abilities.





The Everglades

Where: Southern Florida

Who: Wildlife watchers, sunshine-seekers, and water babies alike will love this laid-back adventure.

Why: Alligators, manatees, dolphins, roseate spoonbills, white-tailed deer, and southern leopard frogs are some of the wildlife that inhabit this 1.5-million-acre swath of swampland stretching from Naples to Miami across the southern tip of Florida. But the Everglades are more navigable (and hospitable) than you might think. Grab a paddle to explore this watery wilderness. One of the most popular spots is Nine Mile Pond, a dedicated, five-mile canoe and kayak trail.

When: Any time except February and March, when dry conditions create shallow and impassable spots on Nine Mile Pond. Summer is hot and sticky here.

How: Rent canoes or kayaks at the Flamingo Marina (evergladesnationalparkboattoursflamingo.com), 38 miles south of the Everglades National Park entrance gate (nps.gov/ever).

Cost: Canoe and kayak rentals begin at \$16 for two hours; cars driving into Everglades National Park can get a \$10 pass good for seven days at every entrance.

Difficulty: Easy — this is a placid paddle.



Acadia National Park

Where: Mount Desert Island, Maine

Who: Nature lovers, early risers, and anyone else who'd prefer to escape from the crowds that can clog other national parks.

Why: Cadillac Mountain, the 1,530-foot peak in Acadia National Park, is the highest point on the Eastern Seaboard, but it's only one of Acadia's highlights. Tidal pools, paddling-perfect ponds, and historic carriage roads built by John D. Rockefeller are set among 47,000 acres of raw coastline and wild woodland. Hike the 5.4-mile Schooner Head Trail and the 4.4-mile Cadillac Mountain North Ridge Trail, which overlooks Frenchman Bay; cycle around Seal Harbor; or

undertake a crossing of Long Pond.

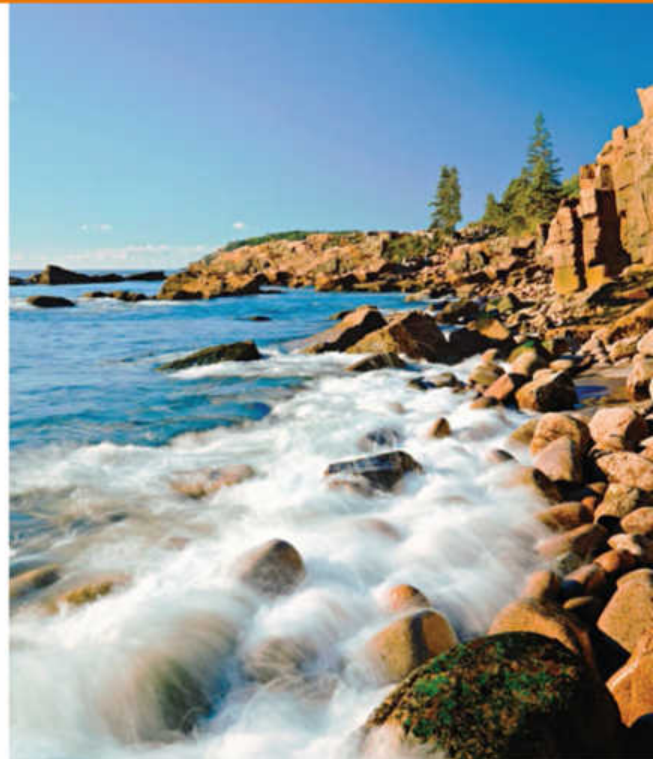
When: Any time. But be prepared for temps as low as 14 degrees F in colder months.

How: The park headquarters office offers maps and information (nps.gov/acad).

Cost: Seven-day park passes are \$25 per vehicle (\$12 per person on bike or foot); bikes are \$23 per day, and watersports rentals start at \$30 (nationalparkcanoerental.com).

Difficulty: As easy as you please. Those who want more challenge can hike and camp in Acadia's more remote backcountry. 🌲

Sarah Tuff Dunn writes on fitness, health, and travel from Burlington, Vt.





◀ Warm Your Way

The North Face DNP jacket for men is ready when you are. Made almost entirely from environmentally friendly Bluesign-approved fabric, its sturdy surface easily handles friction from rocks and branches. The PrimaLoft fill stays warm even when wet, and underarm panels stretch so you have maximum freedom to climb or reach. Tucks into a stowaway pocket for the perfect emergency layer. \$160 from www.thenorthface.com.

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Under a bike helmet or on its own, the breathable, windproof Dome Perignon fleece hat from Mountain Hardwear has you covered. \$36 from www.mountainhardwear.com.



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The right tool for cold-weather workouts, Nike Pro Hyperwarm Light Compression Shred tights fit snugly to give you support or warmth under another layer. Sweat-wicking fabric helps fight the chill. \$55 from www.nike.com.



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This elegant beeper-size activity tracker from Spire gives you feedback on not just your steps and other physical activity, but also your respiration patterns — a terrific indicator of stress or relaxation. If your breath gets rapid or shallow, the device (which pairs with your phone) sends you a text with a gentle reminder to breathe deeply. Tucks discreetly into a waistband. Shown here with charging pad. About \$150 from www.spire.io.



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Course Facts

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Amount Per Serving

Duration 90 minutes

Course Contains

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The science behind what fuels you	33.4%
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Total	100%
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A portrait of Calvin Harris, a man with short brown hair and a light beard, wearing a black collared shirt. He is looking directly at the camera with a neutral expression. The background is dark with golden bokeh light effects.

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Take Back Your Taste Buds

Highly flavored processed foods have hijacked our sense of taste, driving unhealthy cravings and sabotaging our health for too long. It's time to reclaim our palates.

By JULIE KENDRICK

Melanie Swanson loved pizza and hot dogs ever since she was a kid. Green leafy veggies, salmon, and quinoa? Not so much.

Like many people who grew up on processed fare, “healthy” foods just didn’t taste as good to Swanson. She craved potato chips, mac and cheese, and soda, even though she knew they weren’t good for her.

So when a friend asked her to team up for a monthlong detox last spring, the 30-year-old photographer decided to go all in. For 30 days, she eliminated all processed foods and ate vegetables, lean meats, seafood, eggs, and certain fruits, plus plenty of healthy fats.

As the weeks passed, something

unexpected happened: She started noticing the *flavors* of these real, whole foods.

“I discovered sweet potatoes, which I had always avoided because of their texture,” Swanson says. “Suddenly, I was eating baked sweet potatoes three days a week, and they tasted great.”

She even began eating fish, which she had long avoided. She found herself appreciating the simple pleasure of a mixed green salad dressed with homemade vinaigrette, instead of her usual dose of store-bought ranch dressing.

And after a month of healthier eating, something else caught her by surprise: Some of the processed foods she used to love just didn’t taste near-

ly as good. “I had a box of Girl Scout cookies around the house, so I decided to treat myself,” she says. “That Samoas was so sweet — really *overly* sweet.”

Swanson’s experience of a newly awakened palate is not unique.

“It’s never too late to get your taste buds back on the right track,” says Rebecca Katz, MS, director of the Healing Kitchens Institute at Commonweal and author of *The Healthy Mind Cookbook*. “We’re born with an inherent ability to taste real food on a deep level.”

The good news, Katz says, is that no amount of processed food will permanently alter that. And once your palate is back on track, it will steadily guide you toward healthier (and *tastier*) choices.

The Biology of Taste

Get a mirror, stick out your tongue, and say hello to your taste buds, all 10,000 of them. Those small bumps on your tongue, roof of your mouth, and throat are called papillae, and each of them is home to up to 700 taste buds. And each tiny taste bud contains about 50 to 80 specialized taste-receptor cells.

When a taste receptor recognizes a flavor — sweet, salty, sour, bitter, or umami (savory) — it sets off a biochemical reaction called transduction, translating chemical information from the taste stimulus into an electrical message that travels through the cranial nerves to the gustatory cortex of your brain.

Taste buds help set your body's metabolic machine in motion, as does your sense of smell. (Chewing releases molecules from food at the back of your throat up into the retro-nasal passage, sending signals to your brain's olfactory cortex.)

Based on the messages it receives, your brain cues digestion, sending signals via the vagus nerve and triggering what is known as the cephalic phase response: Take a tiny taste of barbecue sauce before the picnic even begins, and your brain is already releasing insulin and directing your digestive tract to secrete as much as 40 percent of the hydrochloric acid and digestive enzymes you'll need to process the food you're about to have.

In addition to kicking off the digestive process, your sense of taste serves as a security system of sorts for your body. More DNA is dedicated to the sophisticated flavor-sensing equipment in your mouth, throat, and nose than to any other bodily system — including your brain and eyes, says journalist Mark Schatzker, author of *The Dorito Effect: The Surprising New Truth About Food and Flavor*.

This makes sense when you consider that our earliest ancestors wouldn't have survived long if they weren't able to avoid foods that could harm them and identify foods that met their nutritional needs. It's thought that we're genetically programmed to be wary

of bitter-tasting foods, for instance, because bitterness can be an indicator of plants that are poisonous.

Natural survival instincts also prompt us to seek out foods that are salty, because our bodies require sodium to support nerve and muscle operation. In addition, we're hardwired to seek out calories for energy and fats, which support brain functioning, says Linda Bartoshuk, PhD, a nutrition professor at the University of Florida.



“We used to get the flavor in our food from plants and animals, and now we get it from factories.”

Taste Buds Led Astray

What served us well on the savannah is sabotaging many of us today. The biological mechanisms that are supposed to steer us toward healthy choices have been thrown off course by a mind-boggling array of synthetically flavored processed foods.

“We used to get the flavor in our food from plants and animals, and now we get it from factories,” says Schatzker. (For more on how synthetic flavors have infiltrated our food, see “The War for Our Taste Buds,” page 42.)

Trying to satisfy our inherent cravings for sugars, fats, and sodium

with hyperflavored convenience food fails to meet our health and nutrition needs — and actually makes us crave even *more* processed foods.

That's because the novelty of amped-up flavors appeals to us more than eating the same old foods every day. Food manufacturers use the term “sensory-specific satiety” to describe the phenomenon in which pleasure derived from a known food declines in comparison with more novel flavors.

Sugar, fat, and salt also activate regions in our brains associated with desire and reward. Food manufacturers know this, and they are constantly creating complex flavors and textures that are specifically and expressly designed to be irresistible.

Our cravings for these fake flavors become part of a seemingly endless cycle. Eating too many refined carbs and sugars, for example, can cause a spike in blood-sugar levels called postprandial hyperglycemia, a quick rush (and subsequent drop) of insulin that leaves you feeling sluggish afterward — yet still strangely hungry.

Studies further suggest that foods loaded with trans fats promote excretion of the stress hormone cortisol, which stimulates appetite, driving you to eat even more calorie-dense foods. (For more on how processed foods bamboozle our taste buds, see ELmag.com/scaryfoodscience.)

“The food industry has been clever to tap into mechanisms that are already present in our systems for good reasons,” says Bartoshuk.

Rather than beat yourself up because you crave your favorite boxed mac and cheese or toaster pastry, remember that our desire for satisfying foods is just part of human nature. “Eating has as much to do with nutrition as sex has to do with procreation,” says Schatzker. “We eat for one reason — because we love the way food tastes.”

The good news is that you can consciously reprogram your palate in the service of your health. These six strategies can help you reawaken your body's built-in nutritional wisdom — and your taste buds.

6 Ways to Reclaim Your Taste

STRATEGY 1:

Cleanse your palate.

Whether you gradually ease off highly flavored processed foods or eliminate them all at once, your sense of taste will eventually become more attuned to subtler flavor variations.

You might notice a difference within just a few weeks of eliminating the bad stuff, says Jo Robinson, author of *Eating on the Wild Side: The Missing Link to Optimum Health*. “After a while, you’ll begin to taste things such as the natural sodium in vegetables that you’ve never tasted before.”

One way to jump-start this palate cleansing is to serve yourself the good stuff first: Eat your veggies before digging into the other food on your plate, giving yourself the opportunity to savor their delicate tastes and textures.



STRATEGY 2:

Slow down.

People are used to eating foods that are so highly processed that they don’t take much effort or time to be consumed. Food-texture expert Gail Vance Civile says that her research in the 1960s and 1970s showed that most steaks required chewing up to 25 times on average before being swallowed. Now, “consumers are most comfortable with foods that are chewed only 10 to 15 times,” she says.

To bring out the full flavor of what you’re eating, chew slowly and mindfully. This will also aid with digestion and help you get the most nutrition out of your food.

STRATEGY 3:

Try something new.

If you’re trying to introduce your taste buds to sensations beyond salty and sweet, broaden your horizons with food from one of the other taste categories at each meal: sour (citrus, sauerkraut); bitter (turmeric, dark chocolate); and umami, the rich, meaty taste found in mushrooms, tomatoes, and red meat. (For more on umami, see ELmag.com/umami.)

“Processed food numbs the taste buds, but indulging in true flavor can help reclaim them,” chef Rebecca Katz says. She uses the mnemonic acronym FASS as a reminder to include healthy **fats**, taste-bud-brightening **acids**, flavor-enhancing **salt**, and mellowing **sweetness** in every meal. (For more on FASS, see ELmag.com/tastebuds.)



STRATEGY 4:

Make a positive connection.

Remember that fun gathering with your new neighbors, when you amiably tried baba ganoush for the first time? It turns out that recalling happy times associated with tasting nutritious foods can help you acquire a new taste (even for eggplant!).

We learn to like foods through positive associations, says Traci Mann, PhD, psychologist and author of *Secrets From the Eating Lab: The Science of Weight Loss, the Myth of Willpower, and Why You Should Never Diet Again*.

So just because you couldn’t stand overcooked peas in your school lunch doesn’t mean your taste buds won’t flip — eventually — for freshly shucked peas from the farmers’ market.



STRATEGY 5:**Get your brain on board.**

"Looking forward to eating a food you love provides real pleasure," says Mann. So allow yourself to build up a sense of anticipation, especially if you're about to eat a food you particularly enjoy.

And if it's a food you don't normally like, warm up the analytical part of your brain instead. Set out to collect some interesting data — about its health benefits, texture, flavor, temperature — that might help you overcome your initial aversion.

**STRATEGY 6:****Try and try again.**

Research has shown that repeated exposure can increase how much you like a particular food. And while that's a good reason to keep dishing up spinach to your kids at dinnertime, it's a course of action that can work just as well for you, too.

"The more times you eat something, and the more times you enjoy a happy moment while eating that food, the more you'll end up liking it," Mann says. "For some bitter foods, it might take up to 20 separate tastings before your taste buds finally learn to like it."

Try different preparations to see if you find one tastier than another. For example, if you don't care for roasted beets, try eating them raw in a salad.

**WEB EXTRA!**

For more about Katz's FASS tool, visit ELmag.com/tastebuds.



Julie Kendrick is a science writer based in Minneapolis.

The War for Our Taste Buds

To win our grocery dollars, processed-food manufacturers have invested millions in captivating us with turbocharged flavors, delectable fats, irresistible crunchiness, and other seductive textures. Phenomena such as Doritos Jacked Ranch Dipped Hot Wings tortilla chips epitomize what journalist Mark Schatzker calls "flavor dose creep" in modern foods.

In his book *The Dorito Effect*, Schatzker states that whole foods began tasting blander beginning in the mid-1960s, when large-scale corporate farming and nationwide grocery-store distribution replaced local, farm-fresh goods. Authentic taste was the first casualty of foods super-bred for mass production, cross-country transportation, and shelf stability.

As a nation, we now consume more than 600 million pounds of synthetic flavorings a year.

"The food we eat comes from farms and breeding facilities focused on productivity, affordability, and disease-resistance, but not on flavor," Schatzker says.

As natural flavor suffers, so does nutrition: Schatzker cites a 2004 study in the *Journal of the American College of*

Nutrition showing that modern tomatoes have half as much calcium and vitamin A as they did in the 1950s.

During this same era, the technical sophistication of synthetic flavorings took off. "Flavors that used to be in foods you'd get from a farm were being produced in food-processing factories," he says. The result can be seen in the modern grocery store, where you might struggle to find a truly tasty tomato but can savor its zesty synthetic counterpart in a bag of ketchup-flavored potato chips found in the next aisle.

Americans are increasingly choosing the fake over the real. As a nation, we now consume more than 600 million pounds of synthetic flavorings a year, Schatzker says — about 2 pounds per person.

The flavor of fresh-picked berries or carrots used to be our signal that food was nutritious. Now, our thrill-seeking taste buds drive us to crave foods that provide little in the way of nutrition but lots of jazzed-up flavor. When you've been riding the roller coaster of lab-concocted taste sensations, it can be a challenge to opt instead for a quiet walk through the vegetable garden. 🌱



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Pomegranate Power

This luscious winter treat is a healthy, flavorful, and antioxidant-rich addition to many dishes.

By KAREN OLSON

RECIPES BY BETSY NELSON

With a gorgeous leathery skin that ranges in hue from soft pink to ruby red, the pomegranate would make a lovely ornament for your holiday table. And yet the jewel-like treasures within this fruit are what really make it special.

Each pomegranate contains hundreds of crunchy seeds surrounded by sweet, tart, red juice. To botanists, the seed-and-juice combo is known as an aril, but most people refer to it simply as a seed. Fresh, dried, or juiced, pomegranate seeds can add bright flavor and a hearty antioxidant kick to a variety of dishes.

Pomegranates have a reputation for being difficult to open, but a few simple tricks make getting into this fruit and removing its ruby-red seeds relatively easy (see ELmag.com/pomegranates). And because pomegranates deliver a nutritious boost for your heart, mind, joints, bones, and overall health, the effort is well worth it.



Quick & Easy

1. Stir pomegranate seeds into your favorite salsa for added fruity pizzazz.

2. Jazz up your salads with a garnish of pomegranate seeds.

3. Top avocado or peanut butter toast with pomegranate seeds.

4. Blend $\frac{1}{2}$ cup pomegranate juice into your morning smoothie.

5. Toss some pomegranate seeds and toasted pecans into your breakfast bowl.

6. Sprinkle pomegranate seeds over plain yogurt, along with chopped nuts and a drizzle of honey.

Nutritional Know-How

■ A true superfood, pomegranates include every type of antioxidant. One study showed that pomegranate juice contains at least 20 percent more antioxidants than Concord grape, açai, or blueberry juices.

■ Half of the antioxidant content in pomegranate juice comes from ellagitannin compounds, including punicalagins. Punicalagins — found only in pomegranates — lower cholesterol and blood pressure, and fight atherosclerosis.

■ Pomegranates have been shown to reduce inflammation and joint pain in arthritis sufferers. They may help reduce inflammation that contributes to the destruction of joint cartilage.

■ Pomegranates are filled with anthocyanins, which give many plants their deep, bright colors. They may help reduce the risk of cardiovascular disease, cognitive decline, and cancer.

■ Phytochemical compounds in pomegranates stimulate serotonin receptors, which improve symptoms of depression. They also stimulate estrogen receptors, which increase bone mass and protect against osteoporosis.

■ The fruit's vitamin K supports blood clotting and bone health.

Shopping and Storage Tips

■ Choose fresh pomegranates that are round, heavy, and firm. The heavier they are, the juicier they'll be.

■ Buy fresh pomegranates from September to January. Store in a cool, dry, dark place for up to a month, or in the coldest part of the fridge for up to two months.

■ Freeze seeds in a single layer on a baking sheet lined with wax paper; store in a sealed container in the freezer for up to six months.

■ Buy dried seeds to toss into trail mix or sprinkle over foods.



Spinach Salad With Grapefruit, Avocado, and Pomegranate

This beautiful winter salad combines tart pomegranate with tangy citrus, rich avocado, and deep-dark leafy greens. Substitute arugula, endive, or baby kale greens for the spinach if you like. For a little extra crunch, sprinkle with a handful of toasted walnuts or pecans.

Makes four to six servings

Prep time: 15 minutes

For the Salad

- 6 cups spinach, washed and trimmed
- 2 large red grapefruit, peeled, cut into slices, then quartered
- 2 avocados, peeled, pitted, and cubed
- 1 cup pomegranate seeds

For the Dressing

- ¼ cup grapefruit juice
- 2 tbs. pomegranate juice
- 2 tbs. red-wine vinegar
- Salt and freshly ground pepper to taste
- ½ cup extra-virgin olive oil

■ Arrange the spinach leaves in a large, shallow bowl and top with the grapefruit, avocado, and pomegranate seeds.

■ Whisk the dressing ingredients together in a small bowl until smooth.

■ Drizzle enough dressing over the salad to lightly coat the ingredients; toss and serve.



The sweetness of the seeds and juice pair well with the natural saltiness of the pork.

Pork Chops With Pear-and-Pomegranate Sauce

You can cook up this aromatic main dish in a single skillet. Garnish with fresh rosemary or sage leaves if you like.

Makes four servings

Prep time: 20 minutes
Cook time: 15 minutes

- 4 bone-in pork chops, $\frac{3}{4}$ to 1 inch thick
 - Salt and freshly ground pepper to taste
 - 2 tsp. high-heat cooking oil, such as sunflower or safflower, or pasture-fed lard
 - 1 tbs. minced shallot
 - 1 tbs. minced gingerroot
 - 2 pears (Bosc, Anjou, or Bartlett), cored and sliced into eighths
 - 4 tbs. pomegranate juice
 - 2 tbs. port (or you can substitute an additional 2 tbs. pomegranate juice)
 - 4 tbs. chilled unsalted butter
 - 1 cup fresh pomegranate seeds
- Preheat oven to 250 degrees F. (You will allow the seared pork chops to rest here while you prepare the pan sauce later.) Preheat a large skillet with a heavy bottom (a cast-iron pan works well) over medium heat. Add oil to pan.
 - Season the pork chops on both sides with salt and pepper and add to the heated skillet, searing for two to three minutes on each side. When the chops' interior temperature reads 145 degrees F, remove them from the pan and transfer to a baking sheet. Place in oven to rest while you make the pan sauce.
 - To prepare the pan sauce, first add the minced shallot to the heated pan and cook for about a minute until it begins to turn golden brown. Then add the ginger and pear slices, and sauté until they are just tender. Add the pomegranate juice and port; simmer and reduce the liquid to half. Remove the pan from the heat and swirl in the chilled butter, one tablespoon at a time until the sauce has thickened a bit. Stir in the pomegranate seeds.
 - Place a pork chop on each plate and divide the pear-and-pomegranate sauce over each chop to serve.

Sweet-Potato Mash

With Pomegranate and Maple-Balsamic Drizzle

Pomegranates transform humble, roasted sweet potatoes into a dish perfect for entertaining.

Makes six to eight servings

Prep time: 15 minutes

Cook time: 45 minutes to 1 hour

- 3½ lbs. sweet potatoes
 - ¼ cup unsalted butter
 - Salt and freshly ground black pepper to taste
 - 1 tbs. freshly grated gingerroot
 - 1 tbs. maple syrup
 - 1 tbs. balsamic vinegar
 - ½ cup pomegranate seeds
- Preheat oven to 350 degrees F. Place the sweet potatoes on a baking sheet and roast for 45 minutes to one hour. When tender, remove from oven and allow to cool for 10 minutes. Remove the skin with tongs.
- Place the peeled sweet potatoes in a large bowl and mix in the butter with a potato masher. Season with salt and pepper to taste, then stir in the ginger.
- Mix maple syrup and balsamic vinegar together in a small bowl. Scatter pomegranate seeds on top of the sweet-potato mash and drizzle with maple-balsamic sauce. Serve warm. 🍴

Karen Olson is a Minneapolis-based writer and a frequent contributor to *Experience Life*.

All recipes were created by **Betsy Nelson** (a.k.a. “That Food Girl”), a Minneapolis-based food stylist and recipe developer.



Pomegranate seeds add an unexpected crunch to these mashed sweet potatoes.



WHY NO NUMBERS?

Readers sometimes ask us why we don't publish nutrition information with our recipes. We believe that (barring specific medical advice to the contrary) if you're eating primarily whole, healthy foods — an array of sustainably raised vegetables, fruits, nuts, seeds, legumes, meats, fish, eggs, whole-kernel grains, and healthy fats — you really don't need to stress about the numbers. We prefer to focus on food quality and trust our bodies to tell us what we need. — *The Editors*



WEB EXTRA!

For tips on opening pomegranates, go to ELmag.com/pomegranates.



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Let Them Eat Cake

Enough with all the heavy, sugary treats at holiday gatherings. There's a world of fresher, healthier delights out there for you to offer — and enjoy.

BY DARA MOSKOWITZ GRUMDAHL

You know what I love? A glass of old-fashioned, homemade eggnog, prepared with real eggs from wild-roaming chickens and real cream from cows that feed on grassy pastures. The way the fresh nutmeg floats on the whipped egg whites, the way the scent of cinnamon floats through the air — it just whispers *Christmas* to me.

It also whispers, *Wow, I just drank a cup of melted ice cream. Boy, oh boy, I'm full. And holy cow, how am I supposed to eat dinner after this?*

I mean, I love eggnog as much

as anybody, but that doesn't mean I want to drink a glass every night for a month in the run-up to the holidays. It's just a bit much.

I felt this way even before I heard about the Utah man who last year chugged a quart of nonalcoholic eggnog at his company party and ended up in the hospital for the next three days. We simply aren't meant to have that much holiday cheer in such a short period of time.

In December alone, there are fried potato latkes for Hanukkah, holiday-cookie exchanges, treat-laden school programs, gifts of *bûche de Noël* cakes, potluck staff parties, New

Year's Eve blowouts — all piled on top of the inevitable birthdays and going-away parties.

Our ancestors probably tottered into a party and hoisted a glass two or three times during the holidays. They could not possibly have encountered the nonstop tsunami of fruitcakes, seasonal ales, and other edible riches that threatens to drown us today.

So, bah humbug?

Not so fast. There are plenty of ways to celebrate with food and drink that don't involve spackling a cake to another cake and serving it on a raft of still more cake. Here are just a few of my favorites you might explore.

There are plenty of ways to celebrate with food and drink that don't involve spackling a cake to another cake and serving it on a raft of still more cake.

Fanciful Fare

The French have a way of creating platters of vegetables that make you feel like you're eating something fancy. They call them *crudités* (crew-dih-TAYS) and pair them with a dipping sauce like the *niçoise* below, which elevates and unifies them.

For a beautiful spread, I recommend as many fresh radishes as you can find, along with lots of green onions, and green beans, or any other of the related long snap beans. Pile on other veggies according to your taste. I like a mix of Belgian endive, carrots, peppers, celery, fennel, zucchini or other squash, radicchio, blanched asparagus, and sugar snap peas or snow peas.

Fermented treats like French olives, pickled artichokes, and gherkins will round out the plate nicely. Add *chèvre* or other cheeses if you're so inspired, and a basket of crackers or bread.

If you want to make it into a full dinner, add cold roasted chicken, cold poached salmon, or seared rare tuna.

Sancerre, the elegant French Sauvignon Blanc, goes beautifully with *crudités*, and adds a nice through-line to the evening. If you prefer a red wine, Beaujolais is ideal.

Sauce niçoise

- 2 cups mayonnaise
- 2 cloves garlic (or more, to taste)
- 2 tbs. capers
- 3 tbs. *niçoise* olives, pitted
- Black pepper to taste

Combine in a blender or food processor.

Spiced Up

Looking for something gluten-free, healthy, and festive? The Thai tradition of *nam prik* is analogous to French *crudités*. It's a way of serving vegetables with a dipping sauce that can be made with or without meat.

Load up platters with lots and lots (and lots!) of cucumbers, cut on a slant to maximize their dip-holding ability. Add lettuce leaves, Belgian endive, red peppers, asparagus spears, planks of zucchini and summer squash, long beans, slices of daikon radish, cauliflower, broccoli or broccoli raab, Napa cabbage, bok choy, celery, and lots of cherry tomatoes.

Set a dish of vegetarian or meat-added *nam prik* in the middle of the table along with some high-quality sake — the type that's meant to be drunk chilled, to showcase the rice wine's surprisingly delicate lemon or cucumber notes. Or set out some *shochu*, a higher-octane spirit typically distilled from barley, rice, buckwheat, or potato.

If you want to turn it into more of a dinner, add cold, marinated and grilled sliced steak. For a nice, simple finish to the meal, try coconut sorbet or a fruit salad of pineapple dressed with chili pepper to taste.

Nam prik

- 7 cloves garlic
- ¼ lb. ground pork (optional)
- 1 cup cherry tomatoes
- Chili peppers to taste
- 1 tbs. Thai fish sauce
- 3 tbs. shallot, minced
- ¼ cup fresh cilantro, minced

In a hot pan glazed with olive oil, sauté two minced garlic cloves until golden brown, then add the ground pork and brown until cooked through. (You can skip this step to make it a vegetarian dish.) In a food processor, combine the cherry tomatoes, chili peppers, five garlic cloves, Thai fish sauce, and shallot until chunky. Add the tomato purée to the pork mixture, and cook until well integrated. Add water, if necessary; it should have the texture of taco meat. Add cilantro before serving.

An Italian Take

Does every country have a vegetable-based celebration dish that Americans have not been eating? Pretty much! In northern Italy, it's *bagna cauda*, a warm dipping sauce made of olive oil, butter, garlic, and anchovies.

All you do is combine those and serve with a heaping platter of vegetables. Think broccoli, red and yellow peppers, fennel, celery, carrots, radishes, zucchini and summer squash, radicchio, Belgian endive, any sort of snap bean, asparagus, scallions, sugar snap peas, and snow peas.

Barbera, the Piedmontese red table wine, is the traditional pairing for *bagna cauda*, but in the United States it's usually hard to find at a reasonable price to serve at a party. Instead, I recommend a simple Chianti, something earthy and tangy. If you want a more significant spread to make it a dinner, add salami, cheeses, or grilled meats.

Bagna cauda

- ¾ cup extra-virgin olive oil
- 3 tbs. butter
- 2 tsp. chopped garlic
- 8 to 10 anchovies, chopped

In a saucepan, combine olive oil and butter, and cook until liquefied. Add garlic, and cook until it's soft but doesn't become crisp or take on any color. Add anchovies. Cook it all together, mashing with a wooden spoon until the anchovies become a paste. Transfer the mixture into a ceramic bean pot or fondue pot to keep it warm, and serve.

That's how you make vegetables the center of a celebration!

Perhaps you're thinking, *Won't my friends be annoyed or disappointed not to be getting more cake and eggnog?*

The way I look at it, your friends will be getting plenty of that elsewhere. Someone has to be the first to put vegetables in the center of the table this New Year. Why not let it be you? 🍷

Dara Moskowitz Grumdahl is a James Beard Award-winning food and wine writer.

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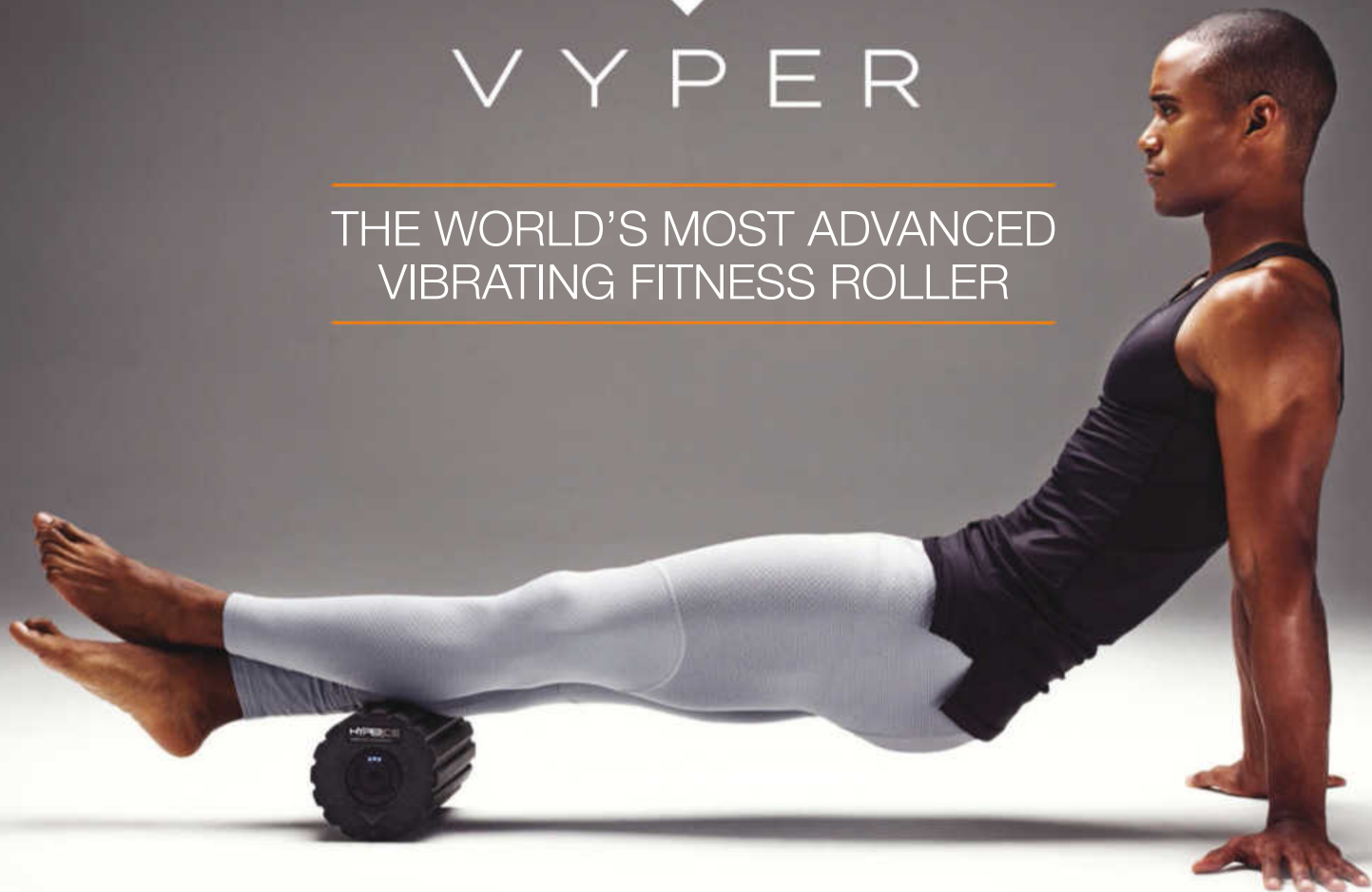
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(That Aren't, Really)

Too many chronic ailments have been pronounced “incurable.” Here’s how some forward-thinking practitioners are resolving such conditions — and transforming their patients’ lives.

BY ANJULA RAZDAN

In his nearly 20 years as a functional-medicine practitioner, neurologist David Perlmutter, MD, has treated hundreds of patients with chronic illnesses. Many came to him as a last resort after years of searching for relief and being told repeatedly that their conditions were incurable, or that the underlying causes were unknown. Tremors, rashes, debilitating pains — Perlmutter’s files are full of “mystery” cases that turned out to be not so mysterious after all.

“Headaches almost ruined my day-to-day life,” one woman wrote to Perlmutter after 30 years of suffering. Jill (not her real name) was a computer programmer, but had to quit when her migraine headaches — which made her nauseated and intolerant of light — became too severe. She consulted several doctors but found only short-term relief with the prescription drugs they offered.

Jill eventually discovered that by following a gluten-free, low-carb, high-fat diet, she could eliminate her headaches — permanently.

While relieved to be rid of her migraines, Jill found it maddening that this relatively simple “cure” was so long in coming. During all her medical searching, she recalls, “not once did any doctor ask what I was eating.”

Because conventional doctors receive little training in nutrition or lifestyle-based treatments in medical school, it makes sense that none had explored potential food triggers. They just provided a diagnosis and offered whatever symptom relief they could.

This is how many chronic conditions wind up classified as having no known cause or cure, when in fact they may have both.

While adept at dealing with infectious diseases and acute conditions like broken bones and heart attacks, conventional medicine often falters when faced with chronic conditions driven by a complex collection of genetic, environmental, and lifestyle factors.

“If you read the neurology journals about treating migraines,” Perlmutter explains, “you’ll see a handful of recommended drugs. But all those drugs are treating the symptomatic smoke and ignoring the underlying fire.”

“A migraine headache could be coming from an inherited food sensitivity, issues related to lack of sleep, or even a consequence of having eyeglasses that don’t fit appropriately,” Perlmutter continues. Of course, not all serious conditions can be so easily resolved. And some diseases really are incurable.

“The point is, we are too often offered one treatment for the end-product diagnosis — the migraine headache — and basically told to ignore the contributing factors.”

Yet those contributing factors are often the missing link. This is why a growing number of progressive physicians are shifting their treatment approach, looking first to causal factors instead of simply addressing symptoms.

“In functional medicine, we understand that people can get to a similar diagnosis by many different paths,” says Perlmutter, author of the best-selling books *Grain Brain* and *Brain Maker*.

The three case studies that follow share a common denominator: What’s being treated are people, not diseases. While each example involves skill, patience, experimentation, and effort, the end result looks a lot like a miracle.

And to the people who are no longer suffering, it probably feels like one, too.

Case Study #1

ADULT ACNE

PATIENT: Jessica, 37

ADVISER: Thomas Sult, MD, medical director of 3rd Opinion, a functional-medicine clinic in New London, Minn.

Jessica had been seeing various dermatologists for 12 years, trying to cure the cystic acne covering her face and upper body. She worked her way from local doctors to the Mayo Clinic. They put her on antibiotics and on Accutane (which was first developed as a chemotherapy drug). Nothing worked.

Having exhausted her conventional-medicine options, Jessica found Thomas Sult, MD. “Her face was red,” he recalls. “It basically looked like she’d been slapped — and she had pustules and scarring. Her upper back and shoulders were inflamed.”

Sult asked Jessica when she last had felt truly well. “She said, ‘I’m here for my acne.’ I told her, ‘I know about your acne, but let’s talk about your history.’”

Functional-medicine practitioners always create a detailed timeline of a patient’s history to uncover any potential triggers for the illness, Sult says. In addition to revealing leverage points for treatment, this helps the patient understand his or her trajectory from wellness to illness. (For more on the timeline, see ELmag.com/functionalmedmatrix.)

“Most of the time, medicine is passive — you see a doctor, you get a pill,” Sult says. “In functional medicine, we ask patients to do proactive things in terms of changing their lifestyle. Unless they understand their

own narrative, it’s difficult for most people to do that.”

Jessica told Sult she’d had perfect skin as a teenager and no discernible health problems. But in college, she began suffering from irritable bowel syndrome (IBS), including alternating constipation and diarrhea, plus cramping, gas, and bloating.

When she was 21, fatigue set in, followed by joint pain. Then, around 25, Jessica got mild acne, which deteriorated quickly into severe cystic acne.

Sult learned that Jessica’s family history showed significant gastrointestinal problems, anxiety issues, and arthritis on both sides.

So, what happened? When Jessica moved from home to college, Sult believes, the stress of a new life, coupled with academic pressure and a genetic predisposition to inflammation, caused her gut to become “leaky.” Food particles escaped into her bloodstream to trigger systemwide inflammation. (For more on leaky gut, see ELmag.com/leakygut.)

As a result, Sult believes, Jessica’s liver became so overburdened by the substances leaking out of her gut that the detoxification process shifted to her skin.

The skin is the largest organ in the body and one of the key organs for detoxification, Sult says. “In Jessica, we have altered microflora in the body with an altered immune response — the undercurrent that contributes to an acne flare-up.”

Sult put Jessica on an elimination diet, with fish oil and probiotics to quell the inflammation and heal her gut. (For more on elimination diets, see ELmag.com/ifmdetox.)

When Jessica returned three months later, she still had the acne, but it was less inflamed. Sult suspected food sensitivities, so he ordered a digestive stool analysis and a test for nutrient deficiencies.

The results were eye-opening: Jessica had significant gut dysbiosis from yeast overgrowth, plus low levels of omega-3 fatty acids and elevated persistent organic pollutants (POPs) in her blood.

Sult treated her yeast overgrowth with a probiotic. To help detoxify the POPs, he increased her intake of healthy fats, especially omega-3 fatty acids and coconut oil. “I basically gave her an oil change,” Sult says.

Jessica continued to avoid dairy and gluten, which she’d discovered she was sensitive to after the elimination diet. She consumed a low-carb diet for six weeks, and then transitioned to a paleo diet rich in veggies and healthy meats.

Sult explains: “In order to change the microbiome, you have to hit the reset button — you have to start with a low-carb diet to keep the candida and other opportunistic bugs at bay — and then splash the gut with a rich diversity of vegetable matter to



Most of the time, medicine is passive. In functional medicine, we ask patients to do proactive things in terms of changing their lifestyle.”

support a diverse microbiome.”

After another three months, Jessica reported fewer IBS symptoms, and “her skin, although not completely cleared up, had improved by another order of magnitude,” Sult says.

At that point, Sult ran another test for POPs. Her results still showed high levels of a common pesticide: The detox process had mobilized the toxin, releasing it into her system, so Jessica continued with her “oil change” to help flush it out. Three months later, her skin was 95 percent better. Three months after that, it was totally clear.

All in all, it took Jessica a year to regain her health, and Sult says this is not uncommon. It can take time to test out various theories about underlying causes, he notes, and also time for the body to heal.

Case Study #2

AUTISM SPECTRUM DISORDER

PATIENT: Jason, 12

ADVISER: Neurologist David Perlmutter, MD, author of *Grain Brain* and *Brain Maker*, and medical director of the Perlmutter Health Center in Naples, Fla.

When Jason went to see David Perlmutter, MD, he could not remain seated, maintain eye contact, or speak in full sentences. His mother, Melinda, had taken him to numerous doctors who performed MRI scans of Jason's brain, EEG monitoring, and multiple blood tests — all of which turned up nothing.

As Perlmutter discussed Jason's history with Melinda, he took note when she said she had been on antibiotics throughout her third trimester for a chronic bladder infection.

"We now understand that antibiotics not only play a significant role in altering the microbiome of a mother, which can affect the development of the baby, but also change the microbiome of the birth canal," Perlmutter says.

Although Jason was born naturally, Perlmutter believes he missed out on the microbial transfer normally conferred by a vaginal birth because antibiotics had eradicated the normal flora from the birth canal.

To make matters worse, Jason was put on multiple courses of antibiotics for chronic ear infections shortly after birth. In fact, Melinda said, during Jason's first year of life he was on antibiotics "more often than not."

Over the next few years, Jason

continued to take antibiotics for various infections, including pneumonia and strep throat.

Meanwhile, his parents became increasingly concerned about his development: He had an extreme speech delay, experienced severe anxiety, had a hard time interacting with others, and developed repetitive behaviors and obsessions with things like turning lights on and off.

In reviewing Jason's records, Perlmutter discovered that doctors had repeatedly noted gastrointestinal issues plaguing the boy, including recurrent stomachaches and projectile vomiting. There was obviously a lot going on in his gut.

"There's not a single case that I have seen in my practice of treating an autistic child where the parents did not talk about severe digestive issues," says Perlmutter.

Although many physicians think of autism as a brain-based disorder, Perlmutter says, there have been several recent studies showing significant differences in the gut bacteria (as well as increased gut leakiness) of autistic children.

"We all have the opportunity to rewire our brains and make different connections. Nothing about the brain is indelible."

"The changes in the gut bacteria impart changes in the body that are reflected in compromised functionality of the brain," he explains. This insight has allowed for a totally new approach to the symptoms of autism. (For more on the link between gut and brain health, see ELmag.com/healthygutbrain.)

In Jason's case, a digestive stool analysis confirmed Perlmutter's suspicions: The child's gut was almost devoid of *Lactobacillus* bacteria.

Perlmutter started Jason on aggressive probiotics and vitamin D, which

supports the immune system and helps moderate inflammation.

"Fundamentally, most of the issues with autism come down to inflammation," he notes, adding that inflammatory markers are high in children with autism as well as adults with Alzheimer's.

He also put Jason on fish oil and a low-carb, gluten-free diet with plenty of healthy fats. "Again, this was all to reduce inflammation," Perlmutter says.

When Melinda returned three weeks later, she said Jason had made great progress: His anxiety had decreased, and for the first time in his life, he could tie his own shoes. Five weeks after that, she reported that Jason continued to do well and she wondered if they could amplify his progress.

She and Perlmutter discussed additional treatment options, settling on a fecal transplant to further rebuild Jason's microbiome.

In a fecal transplant, good bacteria are extracted from the fecal matter of a healthy person and transferred to the colon of a person with compromised gut bacteria.

The enema-like procedure is simple and nonsurgical, and it is the most powerful therapy available to recolonize a compromised microbiome.

Several weeks after the fecal transplant, Perlmutter received a video clip from Melinda that brought tears to his eyes: Jason was happily jumping up and down on a trampoline and speaking more fluently with his mother than ever before. "It was absolutely breathtaking," he says.

After undergoing several more transplants, Jason began speaking in complete paragraphs and interacting socially. He is now mainstreamed at his school. (To see Jason's recovery, check out the video at www.drperlmutter.com/brain-maker.)

"We all have the opportunity to rewire our brains and make different connections," Perlmutter says. "Nothing about the brain is indelible."

Case Study #3

SEVERE IRRITABLE BOWEL SYNDROME

PATIENT: Laura, 45

ADVISER: John Cline, MD,
medical director of the Cline
Medical Centre on Vancouver
Island, British Columbia

By the time she visited the office of John Cline, MD, Laura was in bad shape. In addition to severe IBS symptoms (including blood in her stool), the Canadian businesswoman had acute joint pain in her wrists and ankles, headaches, night sweats, shortness of breath, and an inflammatory eye condition called episcleritis.

Her symptoms had been flaring up every few months, with progressively worse episodes, and then had mostly gone away. She had been admitted to the hospital several times, but no doctor could identify a cause for her symptoms.

Doctors had prescribed a variety of meds. During one hospital admission, a rheumatologist concluded Laura had arthritis and put her on prednisone, painkillers, and non-steroidal anti-inflammatory drugs, including ibuprofen.

When Laura went to see Cline, she was swallowing a whopping 4,800 milligrams of ibuprofen daily. (The suggested maximum dosage is 3,200 milligrams.) She had also taken a leave of absence from work.

"She was quite ill," recalls Cline. "She had symptoms that affected many of the systems in her body. For me, having someone like this come in, it's like entering a jungle. My job is to help them find a way out of that jungle."

The key, he says, is looking at the big picture.

As Cline started taking Laura's history, he learned that she had been pretty healthy until one year prior to the development of her current symptoms, at age 44. Given the episodic nature of those symptoms, Cline asked Laura if she had done anything unusual in the days leading to her flare-ups.

Her answer was a bit like stumbling on the Rosetta Stone: She told Cline that a couple of days before each episode, she had sprayed her yard with malathion, a broad-spectrum insecticide.

Cline ordered lab tests, including one to identify chemical sensitivities, and a digestive stool analysis. Not only did he find that Laura had low levels of healthy bacteria in her gut, he also discovered she had a number of genetic variations called single nucleotide polymorphisms, or SNPs (pronounced "snips"), that affected her ability to detoxify. (See our article on SNPs at ELmag.com/snps.)

“My job is to help people find a way out of the jungle.”

"She was missing the glutathione pathway, a key pathway for detoxification of metals and chemicals," Cline explains. "When people are missing the glutathione pathway, even small exposures to toxicants are huge. They cannot effectively detoxify, so the toxicant will start to accumulate in the body."

Each time Laura was exposed to malathion, she could not detoxify or metabolize the insecticide. Over time, the toxin built up in her system. It turns out that it was the main cause of all her symptoms.

To help Laura heal, Cline focused on helping her detoxify and repair her gut. He put her on an elimination diet and recommended foods that would support her body's detoxification pathways, including cruciferous veggies (cabbage,

cauliflower, and broccoli) and allium veggies (onions, garlic, and leeks).

Cline also recommended supplements, including fish oil, vitamin D3, manganese, curcumin, and probiotics. In addition, he prescribed a medical food product to support detoxification and urged Laura to avoid any further exposure to malathion and other chemicals and heavy metals.

At the one-month follow-up visit, Laura said she was feeling much better. Her joint pain and swelling had improved dramatically, and her IBS symptoms and night sweats had completely resolved. She still had occasional headaches and some eye inflammation, but she had returned to work and started exercising again.

Three months after her original visit, Laura told Cline she felt "ridiculously well." She had been reintroducing foods into her diet and found that if she ate more than a small amount of gluten every few days, she experienced abdominal bloating and cramping, so Cline suggested she continue to avoid it. She happily complied.

For many patients, being asked to make lifestyle changes is daunting. But struggling for years or decades with chronic conditions can provide powerful motivation. "When people come to my clinic, they've usually been to many practitioners and they're often desperate to feel better," explains Cline. "As a result, they are usually more than willing to take charge of their health."

For those who've been told, in effect, "Sorry, but there's nothing we can do," being empowered to improve their own health can feel like something of a miracle in itself. 🌱

Anjula Razdan is a Minneapolis-based health journalist.

WEB EXTRA!

To learn how conventional and functional medicine are coming together at the Cleveland Clinic, see ELmag.com/miraclecures.



Make Your Own Health Miracles

Many progressive practitioners take a systems-based approach, exploring how their patients' environment and lifestyle factors interact with their unique physiology. While treatment plans are highly individualized, here are some powerful tips that any of us can employ to safely jump-start our own healing process.

■ TRY AN ELIMINATION DIET.

Most integrative and functional-medicine experts agree that a comprehensive elimination diet — removing common irritants like gluten, dairy, corn, soy, tree nuts, and sugar — is one of the most effective clinical tools available. Best of all, “it’s free,” says Bette Bischoff, MD, RD, a Tulsa, Okla.-based functional-medicine doctor.

■ EAT A WIDE VARIETY OF PLANT-BASED FOODS.

Do your best to eat a diversity of veggies, legumes, and fruits to minimize inflammation, improve immunity, and support a healthy microbiome, suggests Thomas Sult, MD, a functional-medicine doctor in New London, Minn.

■ MOVE YOUR BODY.

It can be as simple as taking a walk, says Sult. If you’re sick or fatigued and exercise often makes you feel worse, he suggests trying “subsymptom threshold exercise”: “If an hour of walking makes you sick but 40 minutes does not, then walk for 40 minutes. Simply stay below the threshold that makes you feel worse.”

■ TAKE HIGH-QUALITY SUPPLEMENTS.

A whole-foods-eating program is a cornerstone of functional medicine,

says Bischoff, but soil depletion means our fruits and veggies are less nutritious than they used to be, and most of us don’t eat as well as we might intend. As a result, it’s estimated that anywhere between 30 and 90 percent of U.S. adults suffer from one or more nutritional deficiencies. Taking a high-quality multivitamin with minerals, plus vitamin D and a fish oil or other omega-3 supplement, can help you avoid that fate.

■ WORK WITH WHAT YOU’VE GOT.

Even if you are saddled with a family history of chronic disease, know you are not a prisoner of your genes. It’s the way your environment and lifestyle choices *interact* with your genes that matter. “People need to understand that their lifestyle choices have a huge role to play when it comes to chronic disease,” says neurologist David Perlmutter, MD.

■ BEWARE OF TOXINS.

“Most people aren’t aware of how disruptive environmental toxins can be, especially when it comes to our hormones,” says Margaret Christensen, MD, a functional-medicine gynecologist in Dallas, Texas. Some of Christensen’s top tips: Use clean, organic personal-care

products. Don’t use toxic herbicides or pesticides on your lawn. If you remodel, use low-VOC paint. Don’t cook in Teflon or other nonstick pans. Don’t microwave plastic. Avoid exposing food to Styrofoam and plastic wrap.

■ AVOID EXCESSIVE ANTIBIOTIC USE.

Although antibiotics can be lifesaving, they are also powerfully disruptive to your body’s microbiome. Let your doctor know you prefer a conservative approach to medication. If you do need antibiotics, ask for a targeted drug versus a broad-spectrum one, Perlmutter suggests. Finally, be sure to add a high-potency probiotic (25 to 50 billion live cultures) while you’re taking the antibiotic, he advises. Continue it for at least one week after your prescription, and ideally longer.

■ DON’T RUSH THINGS.

People with chronic illnesses are often desperate to get better right away, but in most cases, even “miracle cures” take time. “You can’t do everything at once,” says Bischoff. “I tell my patients to picture a downward spiral: When people finally make it to a functional-medicine practitioner, they are usually somewhere within that spiral. It takes a while to reverse course.”

Lift, Laugh, Cry

Exercise can prompt profound emotional releases. What causes these outpourings? And what might they be telling you?

BY VICTORIA L. FREEMAN

Renee was about 20 minutes into her usual yoga class when tears suddenly began streaming down her face. Although she'd practiced yoga regularly for 25 years, this was the first time she had experienced anything like this.

"The best way I can describe it is that someone turned on a faucet that I couldn't turn off," she says. "I wasn't sobbing, but the tears kept flowing for a half hour."

Renee was embarrassed, but didn't feel she should leave. "I somehow knew that this needed to come out and

I didn't want to stop the process in midflow," she says.

What needed to come out was the fact that her father was dying, and for the past six months Renee had felt compelled to remain strong and "together" for her family. In that yoga class, the floodgates opened and she finally dropped her guard, fully feeling all her grief.

Renee lost her dad four days later, and although the finality was hard to take, she still felt like a huge weight had been lifted from her shoulders during that tearful yoga session.

"After that class," she says, "the heaviness was gone, and I didn't feel the need to sob anymore. I felt so much lighter in spirit. I guess what it boils down to is a physical release for an emotional need."

A rush of emotions like the one Renee experienced during yoga is not uncommon. "I wouldn't say it happens every day, but it does happen in my classes with both men and women," says Jaime Stover Schmitt, EdD, founder and director of the yoga-therapy program Spanda and author of *Every Woman's Yoga*.





And yoga isn't the only form of exercise where people experience emotional breakthroughs. "I have a female client who broke down crying after an intense set of weight training one day," says Steve Zahn, HKC, a certified personal trainer with Life Time Fitness in St. Paul, Minn.

"It turned out that things weren't good at work and she didn't want to face the fact that she needed to change jobs. She knew it somewhere deep down inside but was just too scared to admit it — until her workout helped her identify her feelings about the issue."

Many of us have felt the endorphin high associated with intense exercise, and there's plenty of research showing how exercise can improve mood, relieve depression, and reduce anxiety, notes Kate Hays, PhD, founder of The Performing Edge sport and performance psychology clinic in Toronto and author of *Move Your Body, Tone Your Mood*.

In fact, the uplifting effects of physical activity are so powerful that pioneering therapists like Hays often include it in their treatment for clients.

But in stark contrast to the positive emotions we often equate with

exercise, it can also trigger a release of frustration, confusion, fear, anger, pain, sadness, or loss.

While resolving issues that have long weighed you down is ultimately a mind-expanding, life-enhancing experience, the initial flood of feelings can be unnerving.

That's all the more reason to look closely at what causes an emotional release, and what it may be saying about your life. Like Renee, you might also find ways to embrace these experiences and use them to gain insight and greater self-compassion.

How Your Body Stores Emotions

During his three-decade career as a health and fitness coach, Rudy Hayek, MFT, of Monrovia, Calif., has seen numerous examples of emotional release in both men and women in a variety of fitness contexts.

One characteristic of this exercise-induced emotional phenomenon is consistent, though: Whether the release comes during weightlifting, running, or yoga, “it is not a conscious decision. These feelings seem to come from somewhere deep inside and take people by surprise,” he says.

In response, some people laugh, some cry, others get angry. Still others have an “aha!” insight with a resulting flood of emotions.

So what’s happening here? Is it possible that exercise somehow accesses suppressed feelings that your body has warehoused for processing at a later time? It may seem radical, but the concept of storing emotions is accepted among many bodywork practitioners, including massage therapists, acupuncturists, and chiropractors.

The late John E. Upledger, DO, OMM, craniosacral-therapy pioneer and cofounder of the Upledger Institute International in Palm Beach Gardens, Fla., believed that our bodies store emotions in the form of “energy cysts.” These cysts work in a similar way to the body’s biological defense mechanism of walling off intruder substances like bacteria that cause disease.

The theory is this: When an accident or trauma occurs, energy from that event enters the body. This external, disorganized energy can be forced into the body through either physical or emotional trauma.

If your body is unable to dissipate this energy, it isolates and compresses it into a small, localized energy cyst, where it’s stored for later processing.

Upledger developed a therapy technique called somatoemotional release (“soma” refers to the body), which focuses on unleashing energy stored as the result of physical injuries. As time passed, he found that patients also often experienced simultaneous



emotional releases during treatment; sometimes these were accompanied by vivid memories of an injury or trauma.

He believed that the released energy may contain a certain emotional “signature” acquired from the injury experience, and this information is set free when an energy cyst is broken up.

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There’s something about pushing past your limits to the point of momentary muscle failure that brings emotions to the surface.”

How does this technique apply to exercise? In his book *SomatoEmotional Release*, Upledger described a discovery that may answer that question. Working with patients, he found there were precise therapeutic positions that facilitated the release of energy cysts: Positioning the body to mimic the original position of injury aligns tissue fibers in a way that allows the escape of this compressed energy.

Practitioners of other forms of soft-tissue bodywork, such as Orthobionomy and Trager, base their work on similar principles.

Think about how many diverse ways your body moves when you are exercising. During a workout, you may achieve ranges of motion and joint angles far outside your habitual daily patterns. Could it be that exercise inadvertently approximates these therapeutic positions and assists the release of stored energy?

Such a phenomenon could explain why emotional release is so common in practices like yoga, where your focus is inward, movement is slow, and your range of motion greatly exceeds average daily activities.

Our Emotional Brain

Such possibilities are intriguing, yet most scientists are uncomfortable with the notion of energy cysts and therapeutic positioning to free stored emotions. After all, it’s difficult to study such a phenomenon under the controlled conditions required for clinical research. Emotional release can’t be produced on command when the scientific watch is ticking. Plus, everyone’s experience is unique. Still, many researchers admit it’s tantalizing enough to consider.

“We don’t have clinical brain studies explaining how and why emotional release happens, but we do know enough to make some educated guesses,” says Bradley Hatfield, PhD, professor and chairman in the University of Maryland’s kinesiology department.

“And we do have the brain architecture for the idea of stored emotions.”

Hatfield points to the amygdala — a part of the brain associated with many emotions — and the hippocampus, which houses memory. These two structures are part of the limbic system, commonly referred to as our “emotional brain.”

“The limbic system is close anatomically to the brain stem, which receives a lot of feedback during exercise. Specifically, the reticular formation that is part of the brain stem receives considerable stimulation from muscles,” he explains.

The reticular formation is the area of the brain responsible for your sleep-wake cycles and level of alertness. The feedback from muscles is why exercise tends to make you feel more alert and aware. Given its close proximity to the brain stem, the limbic system, or emotional brain, may also be stimulated during exercise, Hatfield says.

John Ratey, MD, associate clinical professor of psychiatry at Harvard Medical School and author of *Spark: The Revolutionary New Science of Exercise and the Brain*, says that exercise does indeed activate the limbic system.

“Aerobic exercise is the single best way to increase levels of a biochemical called BDNF, or brain-derived neurotrophic factor, in the hippocampus,” he says. “And BDNF helps to protect and produce nerve cells involved in memory. It’s so powerful that I like to call it Miracle-Gro for the brain.

“We’ve been thinking about BDNF in terms of long-range effects on the hippocampus and memory, particularly in laying down new memories,” Ratey adds. “But it’s possible that exercise could also improve your ability to access or retrieve memories using this same mechanism.”

The Biochemical Connection

If activity in certain brain structures represents the macro view behind emotional release, then what happens at a biochemical level is the micro view. Yet most experts see it as an interconnected process.

Transformative Exercise

Are some types of movement more likely to trigger emotions than others? Release happens with many kinds of exercise, but rhythmic activity — such as running, rowing, or cycling — might have a special emotional connection.

Have you ever spent hours working on a tough problem, decided to get away for a walk or run, and suddenly hit on a creative solution or new perspective? There’s a good reason for that.

Evidence suggests that rhythmic exercise may have a calming effect on the cortical, or higher-order-thinking, areas of the brain. “Too much intense thought jumbles the mind, so it’s possible that reducing that chatter through certain kinds of exercise can clear the way for more creative thoughts and feelings to surface,” says Bradley Hatfield, PhD, of the University of Maryland’s department of kinesiology.

But *how* you experience movement, rather than the kind of movement you are doing, can also effect emotional release. “The type of exercise may not make as much difference as your state of mind and willingness to be truly present during the activity,” says

Judith Orloff, MD. “Certainly there are some movements that are inherently more conscious and open, like yoga or tai chi. But if it’s not the right kind of exercise for you, there won’t be as many physical or psychological benefits.”

Your exercise skill level also can determine whether or not emotions flow, says personal trainer Doug Jackson, MEd, CSCS, in Plantation, Fla. “If something is new to you — even if it’s something meditative like yoga — you’ll have to concentrate and think really hard about what you’re doing: Most people don’t feel very open at a time like that.

“But if you’re comfortable with a familiar activity, regardless of what it is, you’re less anxious and your mind is freer to roam and access other thoughts and feelings,” he says.

Heightened workout intensity also seems to elicit release, says personal trainer Steve Zahn, HKC. “There’s something about pushing past your limits to the point of momentary muscle failure, whether it’s during weightlifting or some other exercise, that brings emotions to the surface.”



Mark Hyman, MD, director of the Cleveland Clinic Center for Functional Medicine and author of several best-selling books, including *The UltraMind Solution: Fix Your Broken Brain by Healing Your Body First*, explains: “Your biography is your biology manifested as your biochemistry, and exercise definitely affects your biochemistry.”

What Hyman means is that the story of your life is manifested through your body, and that any part of that story may be actively expressed biochemically — via various hormonal profiles — at any moment in time.

Your personal “story” includes all your beliefs, behaviors, experiences, feelings, diet, exercise — or lack thereof. Everything gets stored as cellular experience, whether it’s immunological memory, neurological memory, or muscle memory. “And those memories can be unwound,” says Hyman.

It is this unwinding of repressed or stored emotions that results in emotional release.

Science is gaining an understanding of how and why this happens. The late Candace Pert, PhD, was a pioneer in studying this aspect of neuroscience. In her book *Molecules of Emotion: The Science Behind Mind-Body Medicine*, she described what she called the “fundamental chemical components of emotion.”

Pert wrote that, on the most basic level, there are two types of mol-

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These feelings seem to come from somewhere deep inside and take people by surprise.”

ecules that work together to create emotions: peptides and peptide receptors. Peptides are the chemicals or “information substances” that carry molecular messages to receptor cells.

Peptide receptors are sense organs, much like your eyes, nose, tongue, and fingers, only on a cellular level. They’re found in cell membranes and act as scanners, waiting for the right peptide to bind with. Once a receptor receives its orders from a peptide, it sends the commands to the cell interior, where a chain reaction of biochemical events begins.

Think of the process this way, explained Pert: “If the cell is the engine that drives all life, then the receptors are the buttons on the control panel of that engine, and a specific peptide is the finger that pushes that button and gets things started.”

At the cellular level, these alterations are minute, but they translate to large changes in behavior, physical activity, and even mood.

Pert believed that repressed emotions are stored throughout the body — not just in the brain — by means of peptides, and that memories are stored in peptide-receptor cells. Pert saw bodywork-triggered emotional release as direct evidence that repressed emotions are stored in body tissues.

Some experts theorize that liberating these feelings — whether via touch or physical movement — can clear energetic pathways and produce a sensation we experience as release.

Scientists don’t know for sure how exercise clears emotional pathways, but Janice Urban, PhD, professor and chair of physiology and biophysics at Rosalind Franklin University of Medicine and Science in Chicago, offers a possibility. Just like your car’s performance depends on a full tank of gas and unobstructed fuel lines, Urban says, “emotional expression is linked to the free flow of peptides. But when peptide flow is restricted, emotions can be suppressed.”

In other words, emotional release is more likely with a steady stream of these information substances. Urban believes that an exercise-induced increase in peptide flow might help to explain why physical activity can help unlock and release repressed emotions.

An Impetus for Change

Whether scientists ultimately discover that exercise and emotional release are linked because of how certain brain structures work, or that the connection is caused by specialized biochemicals, or both, one thing is certain — unleashing repressed emotions can be a life-altering experience.

“Prior to an emotional release, clients say they feel a heaviness or tension that weighs them down and saps their energy,” says Judith Orloff, MD, assistant clinical professor of psychiatry at UCLA and author of *Emotional Freedom*.

She uses the term “energy scar” to describe emotional damage that goes

unresolved. But once an energy scar is repaired, everything changes. "People feel lighter, like they're finally free," Orloff explains.

The healing benefits don't stop there. "I've had clients with irregular heartbeats that cleared up once they released unresolved emotions," she adds. "Chronic fatigue and fibromyalgia improve. All sorts of stress-related symptoms like headaches and backaches disappear. Ulcers and irritable bowel syndrome heal. And the list goes on."

Freed from emotional baggage, you

may find the strength and courage to deal with dramatic events or make major life decisions. Or, like one of Hayek's clients, you may be inspired to remake yourself from the inside out.

"One of the most powerful examples I've seen was a woman named Cindy who hired me as her trainer after the birth of her second child," he says. "She wanted to lose 80 pounds and run a marathon."

A few weeks later, on Cindy's longest training run to that date, repressed feelings percolated to the surface.

"She had a rough personal life,

years of self-esteem issues, and basically she was afraid to push herself beyond where she knew she could go," Hayek says. "On that training run, Cindy began to cry. So we slowed to a walk. She talked, and I listened. Once these feelings came out, she felt like running again, so we did."

A year later, and 70 pounds lighter, Cindy completed her marathon — this time with tears of joy as she crossed the finish line. 🏆

Victoria L. Freeman, PhD, is a writer who specializes in health and fitness.

Embrace the Release

A surprising outburst of emotion can be disconcerting, but really, it's an opportunity for growth and healing. When the initial flood of feeling is over, you're left with a choice: You can either keep going along your current path, or you can embrace this new self-awareness and the healing wisdom that goes with it.

Consider using these suggestions from Judith Orloff's book *Positive Energy: 10 Extraordinary Prescriptions for Transforming Fatigue, Stress, and Fear Into Vibrance, Strength, and Love* as a guide for integrating an emotional release into your life:

- Do your best to stay with the feelings until the release subsides.
- Let go of any tension and breathe deeply.
- Go to an energizing, safe place (if you're not already there) to process what happened.
- Listen to your intuition about what the experience is telling you.
- Journal or meditate on your thoughts and feelings.
- Find a trusted friend, confidante, or professional counselor to talk with, then evaluate whether you wish to make changes in your life as a result of new insights and awareness.

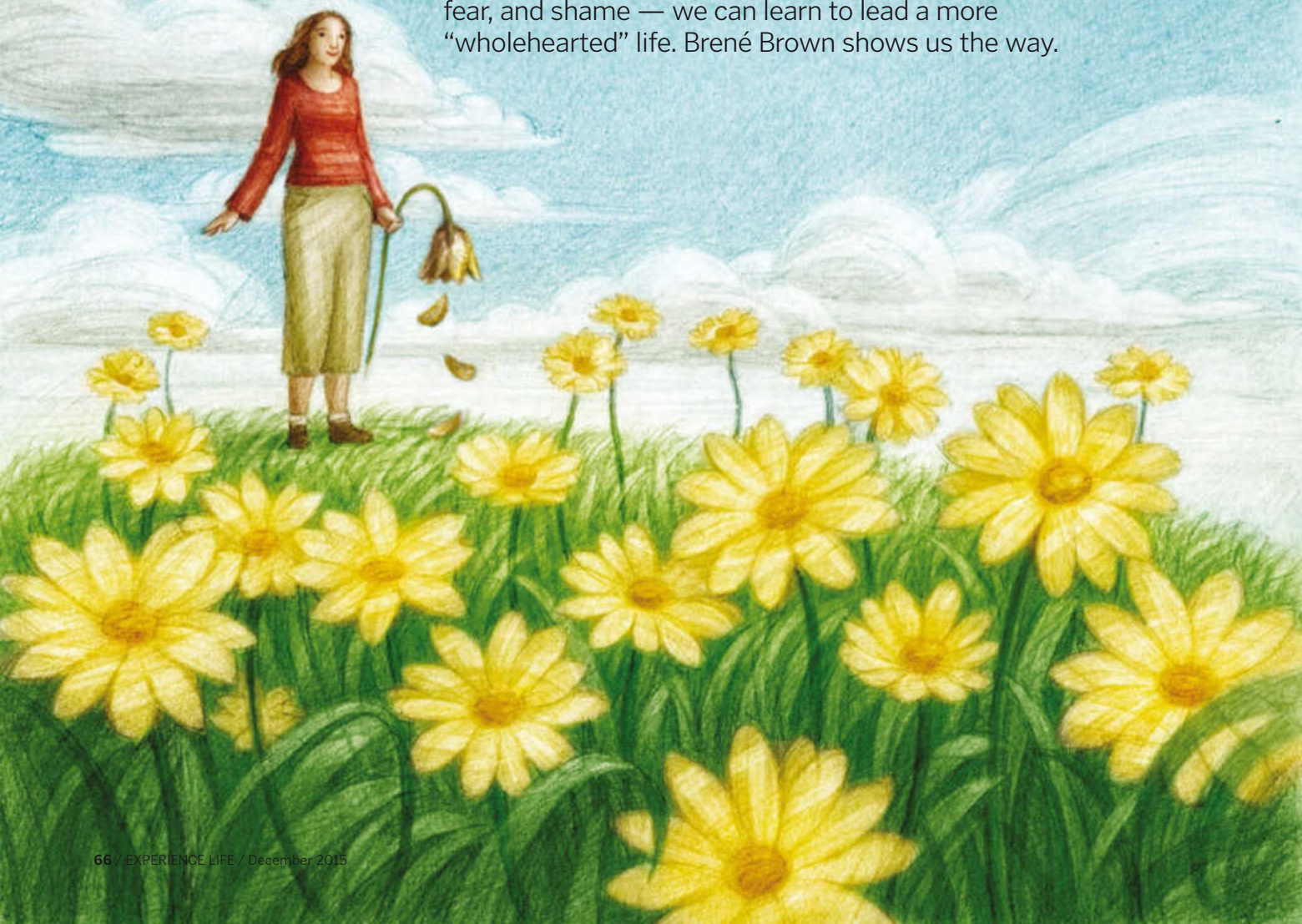


WEB EXTRA!

For a meditation designed to release emotions from James S. Gordon, MD, founder and director of The Center for Mind-Body Medicine, see ELmag.com/liftlaughcry.

Unexpected The Gifts of Imperfection

By confronting our scarier emotions — vulnerability, fear, and shame — we can learn to lead a more “wholehearted” life. Brené Brown shows us the way.



The toughest moments in life rarely feel like gifts. Whether it's losing a job, struggling through a foundering relationship, or witnessing the death of a loved one, experiences that bring us to our knees tend to trigger our defenses, not our wisdom.

And yet, when we humble ourselves enough to open up during awful times — accepting that we're vulnerable rather than lashing out or collapsing in despair — we're primed to receive “the gifts of imperfection,” explains best-selling author Brené Brown, PhD, LMSW.

These rewards — courage, compassion, and connection — are not given to the faint of heart, notes Brown, a research professor at the University of Houston Graduate College of Social Work who has spent more than a dozen years studying vulnerability, worthiness, and shame.

It's tough stuff, she believes, to embrace vulnerability — what she describes as “the core of all emotions and feelings.” Yet, in her view, this is a path that leads straight to heartfelt joy.

“Don't get me wrong. I'd love to skip over the hard stuff, but it just doesn't work,” she writes in *The Gifts of Imperfection*.

“We don't change, we don't grow, and we don't move forward without the work [of being vulnerable]. If we really want to live a joyful, connected, and meaningful life, we must talk about the things that get in the way,”

she notes. (For more on this, see “The Myth of Vulnerability,” page 71.)

So how do we confront the obstacles to meaning and intimacy? How do we practice vulnerability without crumpling or becoming dependent? What does it mean to live life “wholeheartedly,” as Brown puts it, embracing not just our successes but also our failures as opportunities for growth and connection?

Brown has devoted her career to helping people answer these questions. In her popular books — *I Thought It Was Just Me (But It Isn't)*, *The Gifts of Imperfection*, *Daring Greatly*, and her most recent, *Rising Strong* — she reminds us that getting real with difficulty means we can get real with anything.

Resilient Living

The No. 1 obstacle to showing our vulnerability, writes Brown, is shame — “the intensely painful feeling or experience of believing we are flawed and therefore unworthy of love and belonging.”

None of us is spared this inherently human experience. We're invariably afraid to talk about shame, and (here's the kicker) “the less we talk about it, the more control it has over our lives.”

The more shame burdens us, the less we're likely to allow ourselves to be vulnerable in difficult times. It's simply a biological response for most of us: Shame sets off the parasympathetic nervous system's protective response; we shut down

rather than open up.

Yet, Brown consistently encounters people in her research who demonstrate what she calls “shame resilience.” She describes this trait as “that ability to recognize shame when we experience it, and move through it in a constructive way that allows us to maintain our authenticity and grow from our experiences.”

Brown believes we can all learn to become more shame resilient if we're willing to reach out precisely when we want to shut down.

“[Shame] resilience requires cognition, or thinking,” she explains. “And when shame descends, we almost always are hijacked by the limbic system.”

The shame-resilient people Brown observed in her research were able to call on their brains and hearts when their shame-provoked reptile impulses fought to take over. They consistently believed in their own worthiness, which allowed them to be vulnerable *and* strong in their connections. In short, they had developed habits that allowed them to live wholeheartedly.

Wholeheartedness is a skill anyone can learn, Brown insists. It simply requires that you practice a few techniques designed to boost your self-worth and self-awareness.

What follows are some of these basic tenets for wholehearted living, gleaned from Brown's writings. They teach the basics of shame resilience, which allows us to receive the gifts of imperfection with some grace.

10 ^{Guideposts} to Wholehearted Living

"Wholehearted living is about engaging in our lives from a place of worthiness," Brené Brown writes in *Daring Greatly*. "It means cultivating the courage, compassion, and connection to wake up in the morning and think, *No matter what gets done and how much is left undone, I am enough.*"

Each of Brown's guideposts is a practice in its own right — a chance to develop a skill or a trait that supports living wholeheartedly.

1 Practice Authenticity

Developing authenticity means "cultivating the courage to be imperfect, to set boundaries, and to allow ourselves to be vulnerable," Brown writes. This isn't easy. It's much easier to succumb to people-pleasing or aggressive posturing when shame strikes.

Still, if you make authenticity your goal — rather than focusing on being liked or getting your way — it means that positive outcomes aren't dependent on what other people do or don't do. If you aim for authenticity in your interactions and then stay true to yourself, you win. No matter what.

"We simply can't speak our truths when we are held hostage by what other people think."

— *From I Thought It Was Just Me (But It Isn't)*

2 Find Self-Compassion

Brown, who describes herself as "a recovering perfectionist and an aspiring good-enoughist," views perfectionism as a roadblock to authenticity. It's fueled by a belief that if we look, say, or do everything perfectly, we won't suffer shame or the pain of other people's judgment.

Brown recommends offsetting perfectionism by getting some objective feedback on your current level of self-compassion. One way to do this is to take the assessment at www.self-compassion.org/test-how-self-compassionate-you-are. You'll rate yourself (from "almost always" to "almost never") on statements like "I'm disapproving and judgmental about my own flaws and inadequacies" and "I'm kind to myself when I'm experiencing suffering."

If you're running low on self-compassion, try Brown's morning mantra: "Today, I'm going to believe that showing up is enough."

"It's always helpful to remember that when perfectionism is driving, shame is riding shotgun."

— *From Rising Strong*



3 Cultivate Resilience

Resilience does not mean enduring hardship stoically. It means experiencing adversity without submitting to hopelessness or numbing tactics that “take the edge off” (like alcohol, shopping, or emotional eating). It’s about consciously checking in when we struggle — instead of checking out.

To cultivate resilience, we need to believe that we are capable of handling our challenges. Brown calls this “agency.” Having agency requires a sensibly hopeful attitude (more “I can do this” than “I deserve this”) along with some healthy critical distance on all the “never good enough” messages our culture delivers.

(For more strategies for cultivating resilience, see ELmag.com/resiliency.)

4 Build Gratitude, Joy, and Sufficiency

Many of the shame-resilient people Brown interviewed said they were able to feel joyful and grateful during times when they weren’t exactly happy.

“Joy comes to us in ordinary moments. We risk missing out on joy when we get too busy chasing down the extraordinary.”

— From *Daring Greatly*

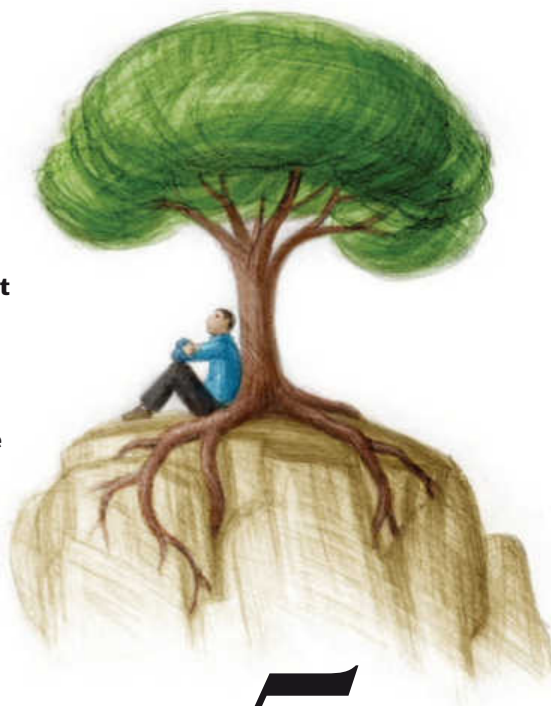
This is because happiness, while important, depends more on how things are going, while joy is connected to a “good mood of the soul.” Acts of gratitude, meanwhile, help produce that good mood — even amid challenging circumstances.

Practicing gratitude also counteracts our sense of scarcity, the all-too-common feeling that there’s never enough of anything, be it time, money, or love.

Brown recommends aiming for an attitude of “sufficiency.” Abundance can feel unattainable; believing that what we are and what we have is *enough* can be powerful.

“Yes, I am imperfect and vulnerable and sometimes afraid, but that doesn’t change the truth that I am also brave and worthy of love and belonging.”

— From *The Gifts of Imperfection*



5 Trust Your Intuition and Faith

We live in an uncertain world. We try to protect ourselves by clinging to rigid beliefs, but by doing so we cut ourselves off from the complexity of people and

experiences — a high price to pay for security. A better approach, in Brown’s view, is to gradually build your tolerance to the vulnerability that uncertainty produces. In other words, cultivate a stronger faith in your ability to remain open and connected when hard times hit.

“Faith is essential when we decide to

live and love with our whole hearts in a world where most of us want assurances before we risk being vulnerable and getting hurt,” Brown writes.

“To say ‘I’m going to engage wholeheartedly in my life’ requires believing without seeing.”

“Intuition is not a single way of knowing — it’s our ability to hold space for uncertainty and our willingness to trust the many ways we’ve developed knowledge and insight.”

— From *The Gifts of Imperfection*

6 Foster Creativity

Practicing creativity is not a privilege reserved for geniuses. When we're creative in any way — whether it's cooking a stew or playing Mozart on the piano — we risk failure. We do it anyway, because it's more satisfying than not taking the risk, and this is very good practice for the rest of our lives.

"When I make creating a priority," Brown notes, "everything in my life works better."

To truly cultivate creativity, though, we have to let go of comparison. Comparison is about conformity, Brown explains, and its paradoxical message is to "be just like everyone else, but better." Embracing creativity without comparison means we can truly enjoy the process without fearing the outcome.

"Creativity is the mechanism that allows learning to seep into our being and become practice."

— From *Rising Strong*



7 Protect Your Play and Rest

Making the choice to rest and play is now counterculture, Brown states. The world is full of messages that equate self-worth with net worth. We preach productivity like it's some kind of gospel, but aspiring to be a robot is not a wholehearted move.

"Perhaps embracing vulnerability and overcoming numbing is ultimately about the care and feeding of our spirits."

— From *Daring Greatly*

"Living and loving with our whole hearts requires us to respect our bodies' need for renewal," she writes.

If you struggle to find time for rest and play, Brown suggests making a list of the conditions that are in place when everything is going really well in your life.

Are you sleeping in on the weekends? Playing Scrabble? Goofing off with your kids or friends? Then treat those practices as sacred, the way you do your other obligations.

8 Don't Fear Calm and Stillness

Calm people are not anxiety-free; they're anxiety-aware, Brown explains. "When I think about calm people," she writes, "I think about people who can bring perspective to complicated situations and feel their feelings without reacting."

When Brown feels strong emotions rising, she notices that she's dying to freak out, and then asks herself, *Do I have enough information to freak out? Will freaking out help?*

"Only when we're brave enough to explore the darkness will we discover the infinite power of our light."

— From *Daring Greatly*

9 Pursue Meaningful Work

Brown discovered early in her research that people on a wholehearted journey feel like their work has purpose and meaning — no matter how simple or complicated it is.

She also found that people who have “slash” work identities (lawyer/jewelry maker; editor/banjo builder) create meaningful work by refusing to be defined by one career.

“Squandering our gifts brings distress,” Brown explains, while giving them brings joy.

Developing our talents involves overcoming the gremlins of self-doubt, so she recommends simply writing down what those gremlins have to say. (“They’re like toddlers,” she writes. “If you ignore them, they get louder.”) Then investigate whether their excessive cautions and warnings are really worth heeding.

“People may call what happens at midlife a ‘crisis,’ but it’s not. It’s a time when you feel a desperate pull to live the life you want to live, not the one you’re ‘supposed’ to live.”

— From *The Gifts of Imperfection*



10 Laugh, Sing, and Dance

One of the ways we devalue vulnerability, Brown explains, is by “hustling to be perceived as cool and in control.” But when we don’t give ourselves license to laugh or be ridiculous, we become intolerant of others who do. That is a lose-lose situation.

When opportunities for silliness arise, take them. Have dance parties in your kitchen. Sing loud to the radio. Say the wrong thing and laugh at yourself. Brown quotes the wisdom of the classic movie *Almost Famous*: “The only true currency in this bankrupt world is what you share with someone else when you’re uncool.”

“True belonging only happens when we present our authentic, imperfect selves to the world.”

—From *Daring Greatly*

Myth The of Vulnerability

“The perception that vulnerability is weakness is the most widely accepted myth about vulnerability — and the most dangerous. When we spend our lives pushing away and protecting ourselves from feeling vulnerable, or from being perceived as too emotional, we feel contempt when others are less capable or willing to mask feelings, suck

it up, and soldier on.

“We’ve come to the point where, rather than respecting and appreciating the courage and daring behind vulnerability, we let our fear and discomfort become judgment and criticism.

“Vulnerability isn’t good or bad: It’s not what we call a dark emotion, nor is it always a light, positive experience.

Vulnerability is the core of all emotions and feelings. To feel is to be vulnerable. To believe vulnerability is weakness is to believe that feeling is weakness. To foreclose on our emotional life out of a fear that the costs will be too high is to walk away from the very thing that gives purpose and meaning to living.”

— From *Daring Greatly*

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Awestruck

Discover how the feeling of awe can make us humbler, kinder, and more altruistic.

By HEIDI WACHTER

“Awesome” has come to describe just about anything we like these days — so much so that it falls short when we recount moments of genuine awe. Standing before a great work of art, surviving a death-defying surfboard ride on a monstrous wave, or experiencing an unexpected encounter with something truly divine: These moments inspire a mixture of wonder and feeling overwhelmed, pushing us beyond the limits of our perception.

Feeling awed can be amazing, awful, or both, simultaneously. “Awe is the commingling of dread, veneration, and wonder,” says Kirk Schneider, PhD, author of *Rediscovery of Awe* and *Awakening to Awe*. And it moves us to understand our place in the universe — just how small, and how big, we really are. Schneider describes it as the “capacity to be deeply moved,

and to experience the fuller ranges of being alive.”

These experiences can also inspire us to take action. Legendary naturalist John Muir was so moved by his encounters with the stands of giant sequoia trees and towering rock formations in Yosemite Valley, for instance, that he founded the Sierra Club, which has since preserved thousands of acres of awe-inspiring wilderness.

More recently, researchers who study positive emotions have found that awestruck moments can even inspire altruistic actions.

Awe, as it turns out, is not solely about the experience of being moved; it’s a feeling that also resides in our physical beings.

Your Body in Awe

“Our capacity for wonder and reverence is rooted in the body,” writes psychologist Dacher Keltner, PhD, in his book, *Born to Be Good*. We’ve all noticed the goose bumps (a.k.a. piloerection) on our arms during awe-

inducing incidents; Keltner notes that people also report “an expansive, warm swelling in the chest” during these experiences. He believes this may be due to the activation of the vagus nerve, which is linked to the parasympathetic nervous system that helps calm us down.

Such incidents also trigger the left orbitofrontal cortex, the area of the brain associated with goal-directed behavior, Keltner explains. This area is activated when people reflect upon internal experiences from a broader perspective, an indication that your awestruck moment is helping you expand your viewpoint.

Additionally, research published in the journal *Emotion* in 2015 shows that experiencing awe may boost your physical health by lowering levels of inflammatory cytokines, proteins that affect cellular function.

For the study, college students filled out questionnaires about their experiences of specific emotional states; they were then tested to measure their cytokine levels. While joy,



ILLUSTRATIONS: LUCY DAVEY

Being awestruck has as much to do with how we look at the world as it does with the world we’re looking at. **We start to have more questions than answers.**

contentment, and pride all predicted a lowering of cytokines, feelings of awe corresponded to the greatest decrease and subsequent anti-inflammatory effect.

Beyond Happiness

Experiencing awe tends to disrupt our illusions of security and permanence. This can be unsettling — but also gratifying.

In his book *Awe: The Delights and Dangers of Our Eleventh Emotion*, Paul Pearsall, PhD, describes how he felt witnessing his mother take her last breath: a mixture of heartbreak, fear of his own mortality, and powerful gratitude for his mother's love.

"Awe can help us go beyond the oversimplified idea that being happy and up is always good and is something for which we must strive, and being sad or down is always bad and something we should avoid at all costs," Pearsall writes.

His account shows how, even in moments of discomfort, we can be astounded by the "vastness" of experience. In facing a loss, for example, we may find ourselves feeling profound gratitude for others, as we recognize on a deeper level how everyone's time is limited. Working to accommodate this understanding, we start to transcend our habitual thinking.

Awe also keeps our egos in check, shifting our focus outward and toward connection — with our communities, nature, and the world.

Take, for instance, the 2007 study that found participants were more likely to describe themselves as feeling part of a universal group after viewing a life-size *Tyrannosaurus-rex* skeleton replica.

Or the research published in the *Journal of Personality and Social Psychology* in 2015 that showed that people behaved more altruistically after viewing a grove of some of the world's largest eucalyptus trees for only 60 seconds.

Study coordinator Paul Piff, PhD, assistant professor of psychology at the University of California-Irvine,

explains that participants were instructed to look up at either the towering trees or an adjacent building for one minute. Afterward, he and his team staged a minor accident: A researcher dropped a handful of pens on the floor. Participants who had gazed at the trees consistently offered more help to the pen-dropping researcher than those who'd looked at buildings.

"Just looking up at those trees," Piff says, "made people more helpful and compassionate."

Daily Inspiration

When we visualize awe-inspiring moments, we probably imagine standing before the Grand Canyon.

But Piff says his study participants often talked about awe as experiences of the everyday variety — such as the way a leaf gets caught up in the wind.

"We're told that things like pride, entitlement, and self-esteem are what we value as humans, but our findings are suggesting that people also like losing themselves," he explains. "People like experiencing things that allow them to embrace values like helping others."

Being awestruck has as much to do with how we look at the world as it does with the world we're looking at. When we're jarred out of our usual ways of seeing — by the view through a telescope or studying the feathers of a bird — we find meaning in unexpected places. We become less fascinated by our own importance and more interested in our connection to other beings. We start to have more questions than answers.

And that can be a pretty awesome way to live. 🌿

Heidi Wachter is an *Experience Life* staff writer.



WEB EXTRA!

Read a Q&A with Kirk Schneider, PhD, at ELmag.com/awestruck.



5 Ways to Cultivate More Awe

Research has shown that feelings of awe benefit our physical and mental health and spark altruistic behavior. Here's how to inspire more awe in your daily life:

- 1. Spend time in nature.** Gazing at cloud formations or other natural wonders reminds us of our place in the vast universe.
- 2. Do some sort of meditative practice.** It will help you become more attentive.
- 3. Cultivate solitude.** You'll notice your environment more, and have more room for self-reflection.
- 4. Visit museums and attend live performances.** They are easy ways to be moved by something powerful.
- 5. Volunteer at places that serve others,** such as hospice centers, animal shelters, or nursing homes. These places all remind us that life is a temporary gift.



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Burdens of the Past

Painful events from childhood can linger, creating stress and anxiety today. Here's how you can take empowered steps toward healing.

BY JON SPAYDE

Emotional pain and trauma from youth can haunt us well into adulthood, as far too many of us know. Mind-body researchers use a special term to describe a range of negative situations that can create toxic childhood stress, especially in circumstances where the child doesn't have adequate adult support: Adverse Childhood Experiences or ACEs.

Abuse is a leading cause, of course, but as Donna Jackson Nakazawa notes in her book *Childhood Disrupted*, ACEs can also result from common family dysfunction, such as being separated from a parent due to divorce or living with a parent facing a mental-health crisis.

The chronic stress caused by ACEs can make it harder to handle stress later in life. It can even promote illness, particularly autoimmune diseases. Research suggests that ACEs actually alter the brain, affecting stress-response genes. This in turn can set off an inflammatory response that can bring on lifelong physical symptoms.

But ACEs don't have to debilitate or hold you back. Nakazawa offers these strategies to help you care for yourself and lessen the burden today.

EXPERT SOURCE

Donna Jackson Nakazawa, author of *The Last Best Cure: My Quest to Awaken the Healing Parts of My Brain and Get Back My Body, My Joy, and My Life* and *Childhood Disrupted: How Your Biography Becomes Your Biology, and How You Can Heal*.

CHALLENGES to OVERCOME

■ **Dismissing the significance of ACEs.** It's natural to assume that because the chronic stress or damage occurred in childhood, we've somehow "naturally" outgrown it, says Nakazawa, or that we ought to be able to put it behind us by an act of will. "We're all part of a culture that has trouble believing that something that's unseen and happened 30 years ago could possibly have anything to do with what we're feeling today," she says.

■ **Fear of rocking the boat.** You may worry that bringing up your stressful

childhood experiences will cause your family pain. And you're not likely to get agreement from all of your siblings, for example, that abuse or neglect even occurred. "Different people have different experiences of the same family," Nakazawa says.

■ **Being unwilling to open and explore old wounds.** Revisiting these issues could bring back painful, repressed memories and make you even more conscious of the emotional and physical price you've paid. Denying that there's a

problem may feel more comfortable than delving into your troubled past.

■ **Survivor guilt.** If your household produced adverse childhood experiences that heavily damaged your siblings while you “escaped” with less obvious wounds, you may feel a form of the classic “Why was I spared?” guilt.

This could reinforce your tendency to minimize the damage represented by your current stress, anxiety, or illness.

■ **Chronic anger.** “Anger can be very healthy and motivating when you are suffering,” Nakazawa says. “But if you’re stuck in anger for what happened when you were a child, you are simply reliving the past over and over, and it’s just not as helpful as deciding to move forward and fall in love with life again.”

■ **Shame.** You may feel like you’re weak or “less than” for not being able to overcome the effects of your childhood experience, particularly if you find yourself

in extreme pain or stress because of the legacy of what happened to you. You may also fear the stigma of being labeled a hypochondriac or a “permanent victim” if you address the problem openly.

■ **Inability to be present.** “When we’re suffering from the pain that comes with ACEs, we tend to be stuck in the past, running old scenarios, or running future fears,” says Nakazawa. “It can be very hard to be grounded and comfortable in the present.”

STRATEGIES for SUCCESS

■ **Understand the implications of your experience.** “Chronic childhood stress can lead to changes in the developing brain that reset the stress response to ‘high’ for life, which in turn promotes inflammation, and later, even disease,” says Nakazawa, who points out that all disease is multifactorial. Numerous studies have demonstrated not just a psychological connection, but a neurobiological one, between ACEs and current symptoms like anxiety, trouble with impulse control, overeating, and even autoimmune diseases such as thyroiditis, psoriasis, and rheumatoid arthritis. Learning about ACEs and their consequences can help you begin the process of healing.

■ **Realize you’re not alone.** One of the best ways to accept your own experience, Nakazawa says, is to understand that you’re not an exception. The landmark Adverse Childhood Experiences Study found that 64 percent of the more than 17,000 participants had experienced at least one ACE.

■ **See a professional first.** If you realize you’ve experienced ACEs (learn

how to get your “ACE score” at ELmag.com/adversechildhood), resist the temptation to discuss this with your parents or siblings right away. Nakazawa suggests talking first to a therapist or doctor you trust. “Simply having



that conversation and being accepted and listened to will allow an opening toward healing. I’ve seen people for whom finally understanding what happened to them and how it may be contributing to their anxiety or illness makes them feel as if there is a realignment of the earth’s axis.” It can start the process of letting go of shame, survivor guilt, and toxic resentment.

■ **Write or draw your story.** “The act of getting your experience down on paper can be very healing,” Nakazawa says. “You might write it in the form of a letter to your parents — even if you never send it — or to your therapist or doctor. The act of

the drawing away for a day, come back to it, and analyze it: What insights emerge about what you experienced?

■ **Practice mindfulness.** “Both mindfulness meditation and mindfulness-based stress-reduction techniques help develop the ability to detach from your thoughts,” says Nakazawa. “And they will put you in the here and now — getting you out of the past-and-future focus and grounding you.”

■ **Explore movement-based therapies.** Yoga, tai chi, qigong, and other gentle, movement-oriented practices can also help you focus on the present moment, says Nakazawa. Yoga has been shown to bring calm by decreasing blood flow to the amygdala, the brain’s “alarm bell,” while increasing it to the frontal lobe and the prefrontal cortex, brain areas that are associated with judgment, choice, and planning. 🧘

Jon Spayde is a contributing editor of *Experience Life*.



WEB EXTRA!

For more information on ACEs, including a link to a questionnaire to help you determine whether you may be suffering from them, go to ELmag.com/adversechildhood.

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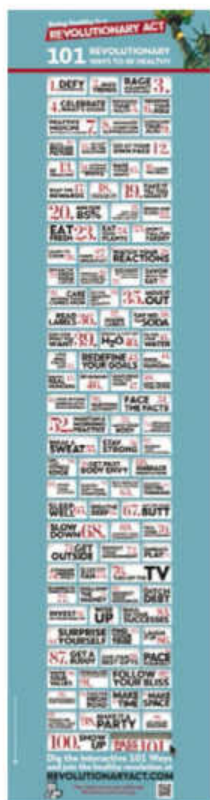
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BY PILAR GERASIMO

People have many excellent reasons for wanting to get and stay healthy. Most of them come down to two basic things: People want to look better and feel better. No big surprise there.

Delightfully, whenever we succeed in upgrading our health, we tend to get both of those benefits at once. But we also get a whole lot more — not just from the positive outcomes of our healthy efforts, but also from the pursuits themselves.

Unfortunately, within the context of our current culture, a lot of these positive benefits don't get nearly enough air time or attention. In fact, most of them are hopelessly undersung.

Mass-media channels are too busy selling us on flatter abs, thinner thighs, and bigger biceps to dig into the broader payoffs of health improvement. And social media's torrent of FitSpO posts rarely convinces us to lift our eyes (or our minds) above the level of a tightly sculpted midsection.

While there's nothing wrong with chasing the torso of your dreams (particularly if you enjoy the chase), I have found that there's greater value in expanding our horizons, and seeing that we can win much bigger than that.

Like many, I originally got interested in eating better and becoming more active because of yearnings that revolved around the basic “look-better-feel-better” promise (a subject I covered in my September

column, “Revolutionary Acts No. 14: Leverage Your Big ‘Whys’”).

Gradually, though, I discovered that I was getting more than I'd bargained for: There were richer and more nuanced experiences to be noticed; more substantial rewards to be reaped.

I got a rush of unexpected satisfaction each time I discovered a new one, as in: “Hey, neat! Why didn't anybody tell me about *this* delightful side effect?”

And yet, on some days — especially when I was feeling stressed, frazzled, tired, or distracted — it was hard for me to stay cognizant of all the ways I was profiting from my healthy commitments. And on days like that, of course, I found it a whole lot easier to let my commitments slide.

So years ago, in an effort to keep myself more consistently motivated, I started developing a list of all the benefits I stood to gain from my continued commitment to health stewardship and self-care. Here, in no particular order, are a few of my favorites:

- Improves your sense of self-confidence and self-esteem
- Amplifies your self-efficacy
- Increases your energy
- Upgrades your mental focus and endurance
- Balances your hormones
- Improves your moods and lowers your stress
- Eases depression and anxiety

- Relieves chronic aches and pains
- Reduces inflammation; reverses many chronic conditions
- Prevents hereditary, disease-causing genes from “switching on” in your body
- Improves your immunity and decreases your vulnerability to contagious diseases
- Extends your longevity
- Reduces the likelihood of being hospitalized or put on prescription drugs
- Lowers your healthcare costs
- Makes you smell better and eliminates offensive body odors
- Heightens your senses and increases your pleasure in being alive
- Makes you more fun to be around
- Enhances your chances of career success and improves your earning power
- Makes you more present and less reactive in your relationships
- Makes you a better partner, parent, and friend
- Emboldens you to try things you might previously have believed beyond your reach
- Gives you strength to fall back on in times of trouble, and helps you bounce back faster
- Helps protect you against addictive and disordered tendencies
- Allows you to exchange the role of low-vitality victim for the role of high-vitality catalyst
- Demonstrates your integrity, your willingness to pursue your priorities, and your ability to follow through on your commitments
- Gives you an opportunity to experience your life in a proactive, intentional way
- Makes you a force for positive change; lets you contribute more powerfully to the world around you
- Reduces your likelihood of becoming a burden on those you love
- Connects you with other strong, exceptional, health-motivated people who share your healthy values and interests

There are many more great payoffs, of course. And, day by day, my list continues to grow.

Whenever I look at my list, I feel a rush of excitement and motivation — and a funny sense of “Duh!” Because *of course* I want all that; *of course* I’m willing to go after it; and *of course* it’s worth the effort.

To me, the promise of all these payoffs goes a lot further in sustaining my motivation than the promise of any idealized midsection could.

Much of the time, we put our attention on minutiae. We nitpick the parts of our bodies we wish were different, we obsess about the things we don’t have, we get all hung up on the forbidden fruits we “aren’t allowed” to enjoy.

And in the process, we lose track of what really matters. We lose touch with the rewards already within our grasp — all those bigger payoffs and pleasures that stand to make the biggest difference in our lives, both now and over time.

There’s a very natural human tendency to overlook and take for granted the most fundamental of things, particularly when faced with a media landscape intent on endlessly

reminding us of the new, the novel, the crazy, the click-worthy, and the terrifying.

So if you want to stay focused on the things that are actually most likely to change your life (as opposed to the “life-changing” discovery or trend of the moment), you are probably going to have to take matters into your own hands.

You’re going to have to reclaim enough brain space and life space for the pursuits and priorities that matter to you, and you may have to reorient your attention toward the less-advertised rewards of your efforts.

Start by making your own list of the payoffs you experience (or hope for) as the result of your own healthy choices, habits, and perspectives. Then allow that list to grow. 🌱



REVOLUTIONARY READING

Grab links to this month’s recommended articles at ELmag.com/revact17.

“8 Ways Exercise Makes You Gorgeous” — A healthy body is a beautiful body. Find out how your surface appearance is influenced by deeper factors.

“9 Ways Exercise Gets Less Difficult (and More Rewarding) as You Go” — Subtle success signals that make your fitness efforts feel way more worthwhile.

“The Food-Mood Connection” — Yes, your eating habits influence your physical health. But did you know that they also have a huge effect on your state of mind?

“Personal Best: Fitness Training for Career Success” — Win big at work by taking better care of your body with these proven corporate-athlete strategies.



Pilar Gerasimo is a nationally recognized healthy-living expert, author of *A Manifesto for Thriving in a Mixed-Up World*, and the creative force behind the 101 Revolutionary Ways to Be Healthy. She serves as senior vice president of healthy living for Life Time — The Healthy Way of Life Company, and is currently working on a book about the art of being healthy in an unhealthy world. Learn more about Pilar’s work and connect with her via social media at PilarGerasimo.com.

The Miracle Morning

Insights from Hal Elrod's best-selling book that can help transform your days — before 8 a.m.



About Optimal Living 101

THIS SERIES, curated by Brian Johnson, founder of PhilosophersNotes, features big ideas from leading thinkers on a wide range of personal-development topics. Find his summary video of “The Miracle Morning” (free!) at ELmag.com/miraclemorning.

By BRIAN JOHNSON

When Hal Elrod was 20 years old, a drunk driver hit his car head-on at 80 miles per hour. He was clinically dead for six minutes. Revived in the rescue helicopter rushing him to a hospital, Elrod spent the next six days in a coma. When he finally awoke, his doctors told him he had suffered brain damage and might never walk again. But he defied the odds and went on to build a successful career in sales and motivational speaking.

When the global recession hit, however, he found himself deeply in debt. He battled depression — and even contemplated suicide.

Then, with the help of a friend, he began to use a regular morning ritual — what he calls “The Miracle Morning” — to help set the stage for a joyful and productive day. He found that the six personal-development practices improved his motivation and honed his focus, pulling him out of his funk completely. Now he’s helping others discover how this practice can change their lives.

If you’ve been looking to jump-start your life — or simply take it to the next level — there’s no better place to start than by dialing in your morning routine. Elrod’s book is a great guide to helping you discover the “not-so-obvious secrets” to rocking your day before 8 a.m.

Good Stories Inspire Change

Elrod shares the story of his head-on collision to motivate us to meet our own lives head-on. He hopes his story is like any



About Hal Elrod

THE BEST-SELLING AUTHOR of *The Miracle Morning: The Not-So-Obvious Secret Guaranteed to Transform Your Life . . . (Before 8AM)*, Hal Elrod is also a renowned business achiever, a popular keynote speaker, one of America's top success coaches, an ultramarathon runner, and a grateful husband and father.

great hero's journey — one that inspires us to overcome our own obstacles and write our own life stories.

"It is crucial for us to embrace the perspective that anything another person has overcome or accomplished is simply evidence that anything — and I mean *anything* — we need to overcome or want to accomplish is possible for us, no matter what our past or current circumstances," he writes.

"It begins with accepting total responsibility for every aspect of your life and refusing to blame anyone else. The degree to which you accept responsibility for everything in your life is precisely the degree of personal power you have to change or create anything in your life."

Elrod encourages us to see every day as an opportunity to live our lives with enthusiasm rather than running away in helplessness. He knows no good story is complete without a hero who overcomes challenges. In fact, the bigger the challenges, the better the story!

There are no limits to where your story goes from here; you get to decide what the next page says.

An A.M. Ritual

Mornings present an opportunity for turning the page and setting the tone for the day, because we often have more control over them than we do our afternoons or evenings. It's an ideal time to set intentions and create the presence we need for the rest of the day — and the rest of our lives.

If your morning is rushed and chaotic, you are already behind for the day. If your mornings are stressful, then your days tend to be stressful, and then your weeks, your months, and your life follow suit.

"How you wake up each day and your morning routine (or lack thereof) dramatically affect your levels of success in every single area of your life," Elrod explains.

"Focused, productive, successful mornings generate focused, productive, successful days — which inevitably create a successful life — in the same way that unfocused, unproductive, and mediocre mornings generate unfocused, unproductive, and mediocre days, and ultimately a mediocre quality of life. By simply changing the way you wake up in the morn-

ing, you can transform any area of your life, faster than you ever thought possible."

Want to have a great day — and life? Start by having great mornings!

Life S.A.V.E.R.S.

Mornings give you time — whether it's six or 60 minutes — to implement a selection of life-changing practices that enhance your physical, intellectual, emotional, and spiritual development.

Elrod refers to the following morning practices as "Life S.A.V.E.R.S." He suggests you do at least a little bit of each one before you kick the rest of your day into high gear:

■ **Silence.** Meditation, prayer, or any other type of contemplative practice allows you to connect with something larger than yourself.

■ **Affirmations.** Mantras are tools of the mind that affirm our capabilities.

■ **Visualization.** We need to "see" what we want to bring into our lives before we can create it.

■ **Exercise.** The benefits of movement — including boosting your mood — are innumerable.

■ **Reading.** Turn off the television, disconnect from the Internet, and tune in to some higher wisdom.

■ **Scribing.** Document what you're excited about in your life.

These daily rituals allow us to slow down, take time for contemplation, think more clearly, and concentrate more effectively. Life savers, indeed.

Create New Habits

Elrod's "Life S.A.V.E.R.S." are

By simply changing the way you wake up in the morning, you can transform any area of your life.

tools that help us build new habits, which are essential because habits drive our lives. "You must identify, implement, and maintain the habits necessary for creating the results you want in your life, while learning how to let go of any negative habits [that] are holding you back from achieving your true potential," he notes.

Elrod's book includes a helpful chapter outlining the three phases — each 10 days long — of habit creation. In the first phase, the new habit is unbearable. It's a pain. We don't like doing it, but we persist.

The second phase is uncomfortable. It's not quite as painful as the first phase, but not awesome either.

The third phase is when we become unstoppable. We feel the benefits of engaging in our new habits, and don't need to use as much willpower to get ourselves to do them. We begin to hit our stride.

Adopting healthy habits helps us create the lives we want. And your best life starts by making the most of every morning. 🌞

Brian Johnson loves helping people optimize their lives as he studies, embodies, and teaches the fundamentals of optimal living. Learn more about his work and optimize your life at brianjohnson.me.

Feel-Good Gifts



Rest Well ▲

Filled with organic lavender and rice, these pretty eye pillows from Norabloom Botanicals can make a 10-minute lie-down feel almost as good as an hourlong nap. Cool in the freezer or warm in the microwave for added comfort. \$15 from www.norabloom.com.



Step It Up ▲

Made in Vermont from merino wool, and knit for serious warmth, Darn Tough socks are so durable that the company owner will personally send a free pair if you put a hole in yours. \$15–\$30 at sporting-good shops. www.darntough.com



Shave the Day ▲

The handsome Stellar Shave set from Ursa Major contains everything needed for a clean, nontoxic shave. The non-lathering shave cream and soothing face balm both have a bright citrus scent. \$60 from www.ursamajorvt.com.

Bless Your Skin ►

These exquisite face and body oils from Feather Eagle Sky are made (and shaman-blessed) in Santa Fe. They blend therapeutic oils like rosehip seed and argan with a host of healing aromatics, including Bulgarian rose and neroli. Intended to be part of your daily self-care ritual. \$84–\$100 from www.feathereaglesky.com.



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ENJOY MORE HOLIDAY BLISS

Find more joy this holiday season with our tips for slowing down and being more conscious at ELmag.com/holidayhelp.

■ TIP #1

Cook your gifts! Make one item for all: Spiced nuts, herbed olive oil, or canned produce from your fall harvest are nice options.

■ TIP #2

Tackle to-dos together! Run your holiday errands or gift wrap with a friend. It's a great time to catch up, too.

MUST-SEE VIDEOS

ELmag.com/videos



▶ Go behind the scenes with Lewis Howes to learn more about his quest for greatness — in himself and others.



▶ Watch our prehab workout video to see these mobility moves in action.



For our online Q&A with Neil Blumenthal, visit ELmag.com/neilblumenthal.

Meet: Neil Blumenthal, cofounder of Warby Parker, www.warbyparker.com

ABOUT: Warby Parker offers trendy eyewear for spectacle lovers with a philanthropic perk: For every pair sold, the entrepreneurial company donates a pair to a low-income individual in need. Blumenthal and Dave Gilboa started Warby Parker to serve the public interest and aid those who are underserved. The styles caught our eye, but the mission captured our hearts. Find them on Twitter and Instagram at [@WarbyParker](https://twitter.com/WarbyParker).

WIN IT!



Register for your chance to win a Cafe Style Tea-for-One set at ELmag.com/giveaways.



Dream Big

What you imagine, you can make happen. The first step: Give yourself permission to see a future that inspires you.

“IF YOU BUILD IT, they will come.” That phrase, made legendary by the 1989 film *Field of Dreams*, still resonates with a lot of people. I think that’s because it says everything about what we instinctively know to be true about pursuing our own dreams.

In the film, Kevin Costner’s character, Iowa farmer Ray Kinsella, plows under a perfectly good corn crop to build a baseball field for a team of ghostly players. It seems like folly. It’s an endeavor that could easily lead to humiliation and financial ruin, an endeavor not easily understood by others. And that’s exactly what pursuing most dreams feels like at some point.

The pursuit of our dreams is, at heart, an act of faith combined with a giant act of will. But when it pays off, the unexpected happens. The world shifts around you, unseen passages open, and in many ways, the rules of reality — at least the rules that have defined your reality — change.

The interesting thing is, that payoff starts long before your dream is realized. In fact, the journey toward the dream is often every bit as gratifying as the dream itself. Because that’s where our passion and courage get kindled. It’s where our vision becomes very clear (even if no one else can see what we see). It’s where we come to discover what we’re really made of, the essence of what makes us tick.

I would argue that having a dream, and the courage to pursue it, is one of the most important foundations for living a good life. Dreams don’t have to be as dramatic as Kinsella’s

cornfield in Dyersville, Iowa. What they do need to be is an expression of who you are.

Ultimately, they must represent the contribution you want to make while you are here, and the impression you want to leave behind when you go.

Your dream must have value that’s obvious and unassailable for you, even through the experiences of trial and error, even through the various victories and defeats that define every dream’s topography.

Dreams ask us to build what doesn’t exist. Not just out there in the world, but in here — in our own hearts and minds.

More than 25 years ago, I began working on a dream. I wanted to create a healthy-living company designed from the customer’s perspective. I had a vision for creating an integrated support system for those interested in becoming the best, most vital people they could be.

It started as one little fitness club, and even that took four years of relentless effort. There were times when other people probably thought I was crazy. But I knew it couldn’t fail. I knew that no matter how improbable success might seem at any given moment, the outcome was a foregone conclusion. It just made sense to me.

The decision to pursue my dream marked the beginning of a period in

my life that I can honestly say has been more fun, more inspiring, and more outrageously exciting than I could ever have imagined.

To see this company grow so steadily over the course of more than two decades, to watch it go public, and then, years later, to see it become privately held once again, has been an incomparable experience.

Now, to be sharing that dream with new partners, to be developing new offerings, new properties, and to be welcoming tens of thousands of new customers every year — it’s all more rewarding than I could ever describe.

Even more energizing to me, though, are the possibilities that lie ahead.

Dreams ask us to build what doesn’t exist. Not just out there in the world, but in here — in our own hearts and minds, in our own perceptions and beliefs of what ought to be.

While “If you build it, they will come” has become a popular catch phrase about the faith-filled pursuit of dreams, in many ways I think the more interesting promise is this: If you build your dream, what’s really guaranteed to show up is you.

I hope this issue of *Experience Life* helps you connect with your own dreams. I hope it inspires you to support yourself in building the vitality you need to pursue those dreams with confidence and vigor. And whatever you decide to build, to discover, or to transform, I wish you every success.

Bahram Akradi is the founder and CEO of Life Time Fitness.



We must not be afraid of dreaming
the seemingly impossible
**if we want the seemingly
impossible to become a reality.**

— Václav Havel



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A ballerina in a white tutu and hairnet is lying on her back, working on the engine of a blue classic car in a garage. She is holding a hose and appears to be focused on her task. The garage has a concrete floor, a red 'EXIT' sign, and a rack of tools on the wall. A red gas can is visible on the left.

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